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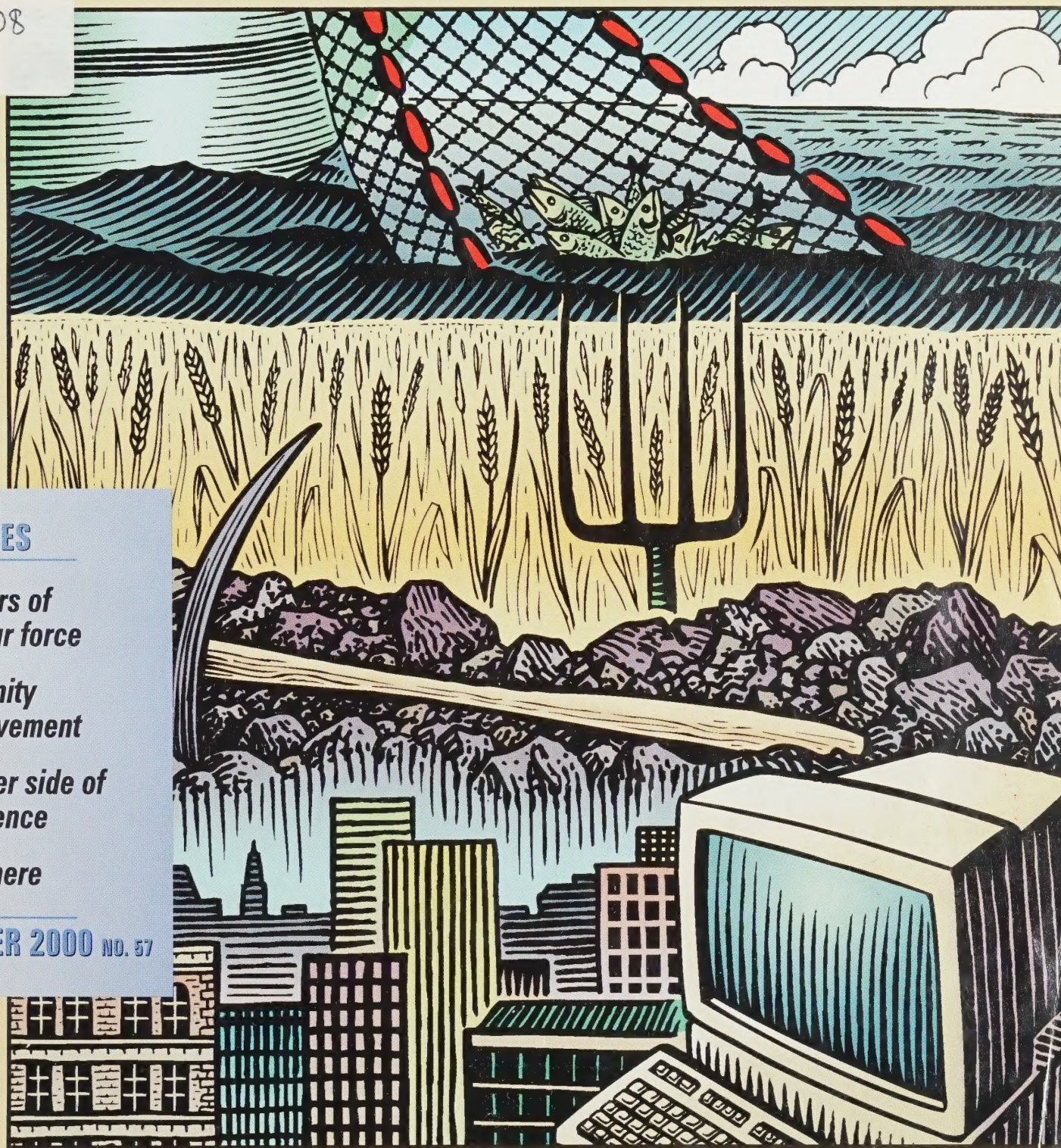
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One hundred years of labour force

by Susan Crompton and Michael Vickers



Canada entered the 20th century on the crest of an economic boom and has left on a similar note. As the country enters the new century, the economy is undergoing a profound transition, just as it did at the turn of the previous century. By the early 1900s, Canadian settlers

had created an agricultural and resource-based economy; in the 1920s, workers began to shift to a manufacturing economy. By the mid-1950s, they had embarked on developing a service economy. At the outset of the 21st century, Canadians face the transition to a global information economy.

The workforce that has powered the Canadian economy through this century of change has itself undergone many transformations — from heavy reliance on European and British immigrant labourers in the early 1900s to one of heavy reliance on service sector workers, women and the well-educated in the 1990s. This article provides a brief overview of the major developments in the evolution of the labour force over the last century.

Early 1900s: The Wheat Boom

In the late 1890s and early 1900s, Canada entered a lengthy period of economic growth known as the Wheat Boom. A variety of factors contributed to the surge in activity — the completion of the transcontinental railway, the foreign demand for Canadian wheat, new metal and mineral exploration. Yet the boom was founded on the federal government's labour policy. Faced with untold potential riches in its western territories, but lacking the human capital to exploit it, the government of the day actively recruited immigrants to develop the west.

The policy was hugely successful. Between 1896 and 1913, 2.9 million immigrants arrived, dramatically increasing the total Canadian population to about 7.2 million.¹ As intended, the majority of immigrants settled in the provinces of western Canada. Between 1901 and 1911, the populations of Saskatchewan and

Alberta increased by over 400%, British Columbia by 120% and Manitoba by 80%.

The influx of immigrants had the desired effect: between 1901 and 1911, the labour force grew by 48%, or almost 1 million, rising to over 2.8 million workers. Immigrants made up nearly two-thirds of the new entrants to the labour force. The country would not experience such a phenomenon again until the 1950s.

As the new immigrants settled down to farm, wheat production soared, and rail traffic and shipping activity increased as wheat was moved to port for transport abroad. The growth of agricultural production also created new demand for machinery from factories in central Canada. Immigrants who settled in Ontario and Western cities like Winnipeg, Regina, Calgary and Vancouver became a key source of labour for the emerging industrial economy.

At about the same time that the agricultural potential of the Prairies was being realized, gold was discovered in the Yukon. Although the Klondike Goldrush of 1896 was short-lived, it spurred interest in metal and mineral exploration in British Columbia and northern Ontario. Seemingly inexhaustible metal and mineral resources, vast forests able to feed the demand for lumber and pulp and paper, and rivers to generate hydroelectricity to power new industries helped to build a modern resource-based economy in the early decades of the 20th century.

1. Newcomers came primarily from Britain and the United States, but about half a million people also came from countries in central Europe. However, the campaign attracted almost no immigrants from France. This triggered great uneasiness in Quebec, whose share of the national population was declining. McNaught, Kenneth. 1988. *The Penguin History of Canada*. 191-193.

This article draws on numerous data sources. Statistics Canada sources include the 1961 Census Monograph Series, the Labour Force Survey, the Analytical Studies Branch Research Paper Series, and unpublished data. Other sources include texts by historians and other academics. A full bibliography is available on the *Canadian Social Trends* website at <http://www.statcan.ca/english/ads/11-008-XIE/index.htm>

Data limitations

Current Canadian labour market concepts were introduced in 1946, when the Labour Force Survey (LFS) was first conducted. Labour force data prior to that year did not use concepts that were necessarily consistent with those of the LFS. Using data from the Census and other sources, researchers trying to “bridge the gap” between the pre-war and post-war periods have produced estimates that are broadly comparable; however, caution should be used in making comparisons between the time periods. For example, the peak Depression-era unemployment rates may represent an undercount caused by declines in union membership during those years. There also is no concept equivalent to the workforce before 1946.

Labour force: people who are employed and those who are unemployed but looking for work.

Workforce: people who are employed.

Employment rate: the percentage of people in a specified population group who are employed; for example, the number of working women aged 25 and over as a proportion of all adult women.

Unemployment rate: the percentage of people in the labour force who are without work but are looking for work and are available to work.

Earnings: income from wages and salaries from paid employment or self-employment.

Real earnings: earnings after the effects of inflation have been accounted for. In this article, real earnings are expressed in 1997 dollars.

Gross Domestic Product (GDP): the total dollar value of goods and services produced by the market economy. This measure does not include the value of unpaid work, such as volunteer work, childcare, eldercare, and so on.

Goods-producing industries: includes the following major industry groups: agriculture; forestry; fishing and trapping; mining, quarrying and oil extraction; manufacturing; and construction.

Services-producing industries: includes the following major industry groups: transportation and communication; public utilities; retail and wholesale trade; finance, insurance and real estate; community services (includes health and social services, and education), business and personal services; and public administration.

Organized labour in Canada

In the early 1900s, organized labour in Canada was still in its infancy, partly because large-scale immigration flooded the labour market with workers willing to accept low wages. Although early unions were able to exercise collective strength through strikes, they had little legal standing and were sometimes dealt with violently by employers and governments alike.

Union membership increased during the First World War, while workers' real wages were eaten away by inflation. Rising anger culminated in the 1919 Winnipeg general strike, during which 35,000 workers belonging to 50 unions paralyzed the city for six weeks. The strike ended only after a bloody clash between police and strikers that left two marchers dead and more than 30 injured.

In the 1920s, mass-production industries such as appliance manufacturing and automobile assembly grew rapidly, but workers in these industries remained difficult to organize. Union membership dropped from 16% of the non-agricultural workforce in 1920 to 14% in 1930. The Depression further weakened unions, but by the late 1930s militant new unions were having some success. They organized workers in the new mass-production industries using tactics such as sit-down strikes and factory occupations. Union membership increased considerably during the Second World War, rising to include 24% of the workforce by 1945, as unions won major concessions from labour-strapped employers.

With these underpinnings, Canadian unions were able to take advantage of the post-war economic boom. Membership nearly quadrupled between 1940 and 1956.¹ Much of the dramatic growth during this period resulted from legislation that recognized unions and enforced collective bargaining agreements. Also, the "Rand formula" provided financial security to unions by requiring that all workers in a unionized bargaining unit pay dues, whether or not they are union members.

As industrial workers came to account for a smaller share of the overall workforce (the overall unionization rate fell from 34% in 1955 to 30% in 1965), unions found new members among white-collar workers, particularly those in the public sector.

In 1999, the national unionization rate was 33%, representing 3.9 million Canadian workers. The rate for men had declined to 34%, from a peak of 41% in 1967; but for women, the rate had risen steadily from 16% in 1966 to 32%. Unionized employees earned more per hour than non-union workers did.² Unionization is highest in the public sector: three-quarters of public sector employees are unionized, versus one-fifth of employees in the private sector. Quebec and Newfoundland have the highest unionization rates (40% of the labour force is covered by a collective agreement), while Alberta has the lowest (26%).

• For more information, see C. W. Riddell, *Unionization in Canada and the United States: A tale of two countries*; I. Abella, *The Canadian labour movement, 1902-1960*; D. Galarneau, "Unionized workers," *Perspectives on Labour and Income*, Statistics Canada Catalogue 75-001-XPE, Spring 1996.

1. Abella, Irving. 1975. *The Canadian labour movement, 1902-1960*.

2. Almost \$3.50 more for full-time workers (\$19.06 versus \$15.57) and almost \$7 more for part-time workers (\$16.80 versus \$9.81) in 1999. Factors in addition to unionization, such as occupation and seniority, can also influence wage rates.

The foundation of resource exploitation, however, foreshadowed a consistent theme in Canadian economic development. While the Wheat Boom brought prosperity to western and central Canada, it left the Maritime provinces almost untouched. Although fish stocks were rich, farmland was marginal and there was little other industry except forestry in New Brunswick and steel and coal mining in Nova Scotia. The tidal wave of immigration that flooded the rest of the country — providing a highly-motivated, readily available source of labour — went almost unnoticed during this period in Nova Scotia, New Brunswick and Prince Edward Island.²

The Great War of 1914-1918: Boom and bust

The Wheat Boom shuddered to an end in 1913 when wheat prices fell in international markets. But the looming clouds of recession were dispersed by the First World War as European demand for Canadian products soared. The value of grain and flour exports doubled, while exports of wood products (including pulp and paper), meat, livestock, and metals all reached record highs.

The Great War was followed by a period of substantial labour unrest and general popular discontent, however. Inflation had eaten away the incomes of many — prices rose about 47% between 1914 and 1918 — and unions (whose membership had doubled) took advantage of their greater numbers to issue more urgent demands for collective bargaining, better hours and improved pay. In 1919, the hours of work lost to strikes set a record unrivalled for almost 30 years.³

2. McNaught. 198-199.

3. McNaught. 224-225.

The Roaring Twenties

World War One helped to transform Canada from an agricultural to an industrial economy. Factories built to manufacture ships, guns and ammunition were now well-placed to meet the demand for consumer products. The 1920s ushered in the large-scale development of consumer markets for a wide variety of products and services from cars to holiday resorts and entertainment.

It was also during the 1920s that Canada became an urban nation. The percentage of the population living in urban areas had risen from about 35% in 1901 to 47% in 1921; by 1931, 53% of Canadians lived in cities. Rapid urban growth was enabled partly by the public financing of many elements necessary to an urban infrastructure, such as electricity supply and telephone service; governments (mainly provincial) stepped in when it became clear that the private sector alone could not build quickly enough to meet demand.⁴

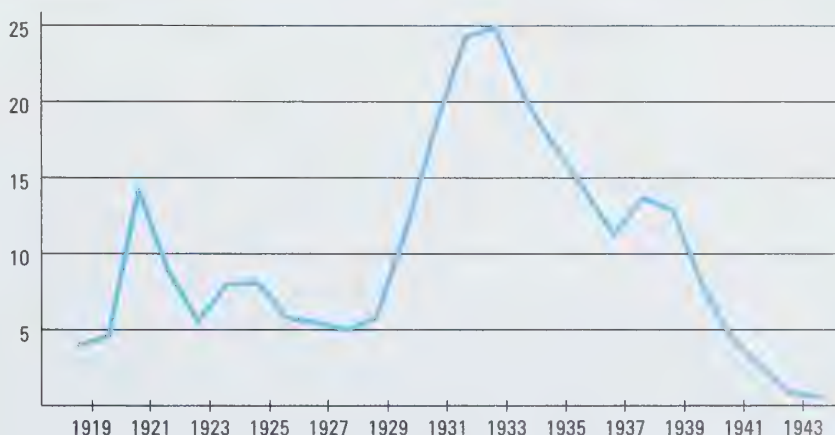
Despite its cheerful depiction in popular culture as the Roaring 20s, not everyone reaped the benefits of the economic expansion. A short-lived recession in 1921-22, during which period the commercial banks put tough restrictions on credit, saw the unemployment rate jump from about 4% in 1919 to over 14% in 1921. Although the rate dropped quickly in the recovery, it did not return to the 1919 level until 1941, two years into the Second World War.

Nor did the different regions reap equal benefits from the new

CST

Unemployment rates peaked in 1933, with over half a million unemployed

Unemployment rate (%)



Note: Equivalent to the non-agricultural labour force excluding the self-employed. Excludes Newfoundland.
Source: Statistics Canada, Catalogue 71F0030XIE (forthcoming).

manufacturing and natural resource industries. On the Pacific coast, British Columbia's economy continued to grow, thanks partly to the 1914 opening of the Panama Canal; but on the Atlantic coast, mining and manufacturing were struggling.⁵

The Great Depression and the Dirty Thirties

Much of the 1920s boom was a house of cards. In the world recession that followed the stock market crash of 1929, Canada was hit harder than most countries. As a trading nation heavily dependent on exports of raw materials and imports of many finished products, it was vulnerable in a time when other countries effectively closed their borders to trade. Between 1929 and 1933, the Gross Domestic Product (GDP) fell by 42%.

A 50% increase in tariffs and government support of the dollar protected some manufacturing-related jobs but worsened conditions for export industries.⁶ The Prairie region was shattered by falling demand for wheat and by drought and plagues of grasshoppers. In the Maritimes, the

fishing, coal and steel industries were violently rocked by shrinking international markets.

By 1932-33, it is estimated that the unemployment rate was about 24%. The number of people without jobs who were looking for work — over half a million — was almost four times higher than in 1929. Although deprivation was widespread following the Crash of 1929, not all Canadians suffered in equal measure. In a terrible paradox, prices for goods and services fell so low that, for those people who were employed, their purchasing power actually increased. In 1930, the value of average annual earnings in real terms was 12% higher than in 1920.

In 1934, the economic situation slowly began to improve, and by 1937, unemployment had fallen to 11%. Then jobless rates began rising again, and the recovery did not take firm hold until the early years of the Second World War.

World War II: The war builds a strong manufacturing economy

Canada declared war on Germany on September 10, 1939, seven days after

4. McNaught. 197-198.

5. For example, in 1922, the wages of the 12,000 Nova Scotia workers in the coal and steel industries were cut by one-third. Militia units broke up the resulting strike and the strike leaders were charged with sedition. McNaught. 232.

6. McNaught. 248.

At the outset of World War Two, as men left their jobs to enlist, the supply of workers declined and demand for labour was soon rapidly resulting in labour shortages. Once the surplus of men unemployed during the Depression was absorbed into the workforce, women were identified as the next source of labour to fill the shortfall.

Single women were already participating in the labour force to a considerable degree, so the government specifically targeted married women to fill jobs in vital war industries that had been left vacant by departing servicemen. Indeed, a report from the Dominion Statistician concluded that “the largest source of future labour supply is among married women,” stating that, although approximately 2.3 million women were listed as home-makers in the National Registration of 1940, by July 1941, less than 3% of these women had joined the ranks of the industrial workforce.¹ To encourage the recruitment of married women, in 1942 the federal and several provincial governments entered into a publicly-funded daycare scheme and urged private employers to provide workplace daycare centres.

Before the war, women tended to be restricted to lower-wage occupations such as personal service, clerical work and non-durable goods manufacturing, such as textiles. Between 1941 and 1943, women's overall workforce participation increased substantially in several non-traditional industries, including manufacturing (from 19% in 1941 to 28% in 1943) and trade and finance (from 30% to 50%).

As women entered more highly-skilled and better-paid manufacturing industries such as aircraft or shipbuilding and electronics, the nature of their work changed significantly. However, the recruitment of women into the labour force was always presented as temporary — women were working because it was their patriotic duty. As soon as “Johnny came marching home,” men resumed their places in the workforce. By October 1945, as industries throttled back from their wartime production levels, nearly 14% fewer women were employed than in the previous year, versus only a 5% drop for men.

The long-term impact of women's employment during the war is uncertain. Some analysts argue there was little apparent effect as unmarried women returned to low-wage industries they had previously worked in, and married women were pushed out of the paid workforce altogether. Others believe that women's wartime work experiences promoted their independence and heightened their expectations for their daughters to pursue higher education and to have careers.² However, no one disputes that women's wartime service demonstrated the implications of a large-scale influx of women into the labour force. Working women in 1940 experienced many of the same problems — poor childcare, competing demands of work and family, unequal pay and the discriminatory attitudes in the workplace — as women entering the workforce in later decades.

• For more information, see S. B. Gluck, *Rosie the Riveter Revisited: Women, the War and Social Change*; B. Light and R. R. Pearson, *No Easy Road: Women in Canada 1920s to 1960s*.

1. Dominion Bureau of Statistics. 1942. *Reserve of labour among Canadian women*.

2. Gluck, Sherna Berger. 1987. *Rosie the Riveter Revisited: Women, the War and Social Change*.

Canadian factories produced motor vehicles, ships, aircraft, guns, ammunition and food.

The first year of the war reduced unemployment, although employment growth was slow. Then in late 1940, jobs began to be created at a substantial pace. Employment was about 2.5 million in 1941 and over 3.0 million in 1944, more than a 50% increase over 1939. Unemployment was virtually non-existent as the final year of the war approached: less than 1% in 1944, and fewer than 18,000 people who wanted work were jobless. Inflation was kept under control by mopping up excess cash with war bonds and similar financial measures. The plan was mainly successful: prices rose 18% from 1939 to 1945 compared with 47% during the First World War.

The long-term impact of Canada's war role was substantial. The trade disruptions caused by the war had forced Canada to manufacture many goods that it had previously imported, such as diesel engines and electronic equipment, and introduced many new synthetic materials, including plastic and other petrochemical products. Canada entered the postwar years recognized as the fourth largest industrial and trading power among the developed nations.

The postwar boom

After the war, Canada braced for an economic slump like that which had followed the First World War, but it never materialized. The expansion of consumer demand, which had been dammed up during the war to prevent inflation, allowed for a fairly smooth transition from a war to a peace economy.

The country experienced a decade of rapidly rising prosperity from 1946 to 1957, fuelled partly by a huge construction boom driven by a rapidly growing population's needs — homes,⁷ schools, hospitals and factories

Britain and France. And for almost two years, until the US entered the war in December 1941, Canada was

Britain's principal supplier of war materiel (France had fallen in June 1940). Over the course of the war,

to meet the mushrooming demand for consumer goods, subway systems and multilane highways to get workers to work. Domestic and new foreign capital opened up natural resources such as iron, uranium, oil and natural gas. Hydroelectric power projects and more transportation infrastructure were developed, the most famous of which was the joint Canada-U.S. St. Lawrence Seaway shipping and hydroelectric project. Rebuilding a war-ravaged Europe also helped to stimulate rapid expansion of exports thanks to European demand for Canadian manufactured and agricultural goods.

Once again, immigrants played a crucial role in meeting the surging demand for workers. From 1951 to 1961, a net total of 1.1 million immigrants entered Canada. Their arrival was largely responsible for the 1950s expansion of the labour force. Unlike the first wave of immigrants in the early 1900s, the new immigrants were much more likely to be professionals or skilled workers.

The educational profile of the new immigrants was part of the government's policy to develop the well-educated, highly skilled workforce necessary to an industrial economy. In 1951, over half (52%) of the Canadian working-age population had less than a Grade 9 education; by the end of the 1960s, over one-quarter had more than a high school completion. In the same period, the percentage of the working-age population with a university degree more than doubled from 2% to 5%. This proportion would double again between 1971 and 1991, to 11%.

7. One-third of Canadians were homeowners in 1948; by 1961, two-thirds owned their homes. Douglas, Ann. 1997. *The Complete Idiot's Guide to Canadian History*.

8. McNaught. 293.

Service sector employment

By the beginning of the 1970s, the services-producing workforce totalled over 4.8 million, or 62% of Canadian employment. In 1999, employment in services accounted for more than 10.7 million jobs and 73% of total employment.¹ The biggest employers in the sector were retail and wholesale trade (2.2 million workers), health and social services (1.4 million) and education (983,000).

Although the services-producing sector includes the highly-unionized public sector industries, many service jobs are not as secure, offer fewer full-time positions and generally are lower-paying than jobs in the manufacturing sector. But recent research shows that, while job stability varies within and between different service industries it is not much different than the goods-producing sector. For example, jobs in business services and distributive services are just as stable as those in manufacturing; on the other hand, those in consumer services have high turnovers like those in fishing, forestry and construction, although their stability seems to be improving.

There is no doubt, though, that services-producing jobs are less likely to be full-time jobs. Only 77% of service jobs were full-time in 1997, compared with 92% in the goods-producing sector. Not surprisingly, nine in 10 part-time workers are employed in the services industries.

The impact of fewer hours of work can easily be seen in the average weekly earnings reported for the two sectors: \$554 for services-producing versus \$777 for goods-producing in 1998. The same pattern plays out between the service industry groups, in which industries with the highest rates of full-time employment have the highest average pay. For example, in 1999, weekly earnings in finance, insurance and real estate averaged \$760 and business services somewhat less at \$700. In contrast, earnings reported in food and beverage services, an industry where almost half the employees are part-time workers, amounted to just over \$210 weekly.

• For more information, see "Are jobs less stable in the services sector?" *Services Indicators*, Statistics Canada Catalogue 63-016-XPB, 2nd Quarter 1998; "Employment and remuneration in the services industries since 1984," *Services Indicators*, 3rd Quarter 1998.

1. A change in industrial classification in 1987 resulted in a slight shift from the goods-producing to the services-producing sector.

Some regions of the country did not experience unqualified benefits from the boom. In western Canada, for instance, the new farm machinery increased productivity while shutting down the need for labour. In the Maritimes, there was little new growth; in fact, the St. Lawrence Seaway diverted traffic from the Atlantic ports of Halifax and Saint John to Montréal and the Great Lakes ports.⁸

Nevertheless, the post-war boom was so powerful that Canadian average annual earnings made their biggest gains of the century (in real terms) during the 1950s. From 1950

to 1960, average earnings grew almost 43% (from \$12,950 to \$18,500). The gain was larger for men (up 44%, to over \$21,250) but also substantial for women (up 36%, to more than \$11,500). Reasons for such high real wage growth include the very low level of inflation in the 1950s and the large-scale movement of men out of the agricultural sector and other primary sector jobs into professional/technical and higher-paying jobs in urban centres.

The economic boom stalled in the late 1950s. Canada's unemployment rate rose from 3.4% in 1956 to 7.1%

in 1961; nevertheless, almost half a million more people were working in 1961 than in 1956, reflecting the underlying power of the economy. Rising unemployment rates largely mirrored the rapid growth of the labour force.

Indicative of this power are the substantial wage gains that continued to be recorded in the 1960s. Annual average earnings were \$24,500 in 1970, up 37% from 1960. This increase was due partly to the accelerating shift away from employment in agriculture and other primary industries into the manufacturing and services sectors. It was also due in part to the rapidly improving educational levels of the workforce and to significant gains in productivity.

The modern workforce starts to emerge

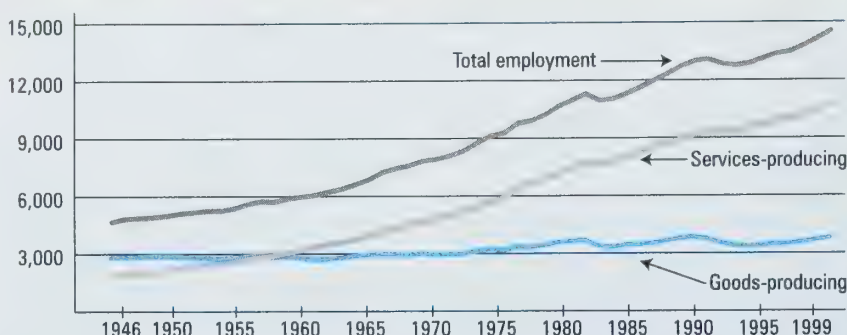
One of the most notable trends in the labour force in the 1950s was the shift in employment from the goods-producing to the services-producing sector. From 1946 to 1960, employment in all industries rose 28% but employment in service-producing industries grew an astonishing 72%, to account for almost 3.2 million workers or over 53% of the workforce.⁹

It was also during the 1950s that another profound change became unmistakable: the large-scale entry of married women into the paid workforce. Working women were not a new phenomenon. In 1901, about 16% of women aged 14 and over were in the labour force; in subsequent decades, the percentage climbed steadily. The greatest relative increase, however, was among married women and the growth continued steadily throughout the latter half of the century. Fewer than 4% of married women were in the labour force in 1941; by 1951, the proportion was over 11%, and by 1961, it had doubled to 22%. By 1980, half of married women were participants in the labour force, and the proportion continued to



Services-producing industries have been Canada's main employer since the late 1950s

Employment (000s)



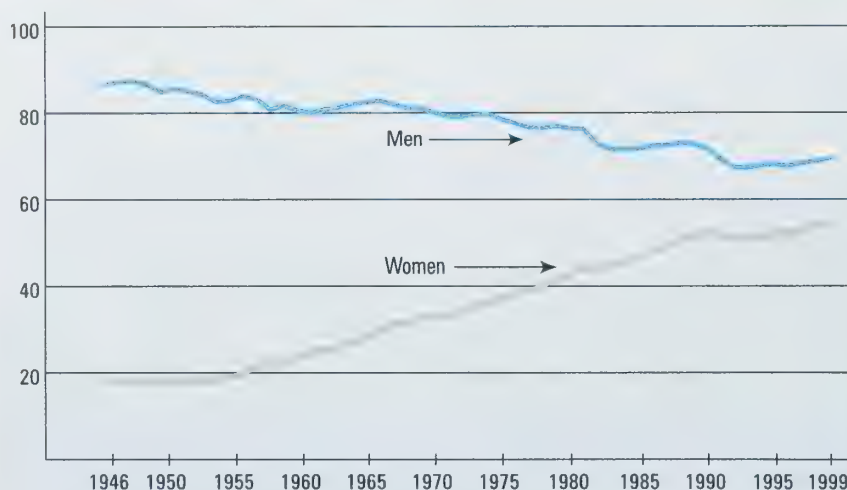
Note: Total employment data from 1976 on have been rebased to the 1996 Census of Population. A change in the industrial classification system in 1987 resulted in a slight shift in employment from the goods- to the services-producing sector.

Sources: Statistics Canada, Catalogue 71-220-XPB (1995) and CANSIM Matrix 3451.



Adult women's employment rates have tripled in just over 50 years, while men's have fallen by one-fifth

% of adults aged 25 and over employed



Note: Data from 1976 on have been rebased to the 1996 Census of Population.

Sources: Statistics Canada, Catalogue 71-220-XPB (1995) and CANSIM Matrix 3451.

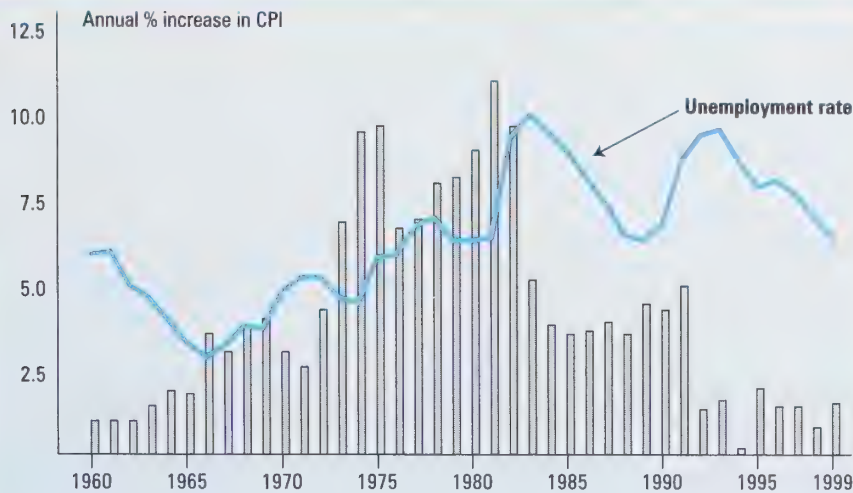
grow modestly to over 60% in the next two decades.

The 1970s: The oil crisis and stagflation

The economy began to weaken in the late 1960s. It was still creating jobs, but the pace was not fast enough to

provide employment for all the baby boomers leaving Canada's high schools, colleges and universities. As a

9. 1958 was the year in which the service sector became the main employer in the economy, accounting for 51% of total employment.



Note: Unemployment data from 1976 on have been rebased to the 1996 Census of Population.
Sources: Statistics Canada, Catalogue 71-220-XPB (1995) and CANSIM Matrices 9957 and 3451.

result, unemployment rates began to rise, reaching 6.2% in 1971 and 1972. Then in 1973, the “oil shock” hit.

The oil crisis of 1973-75 was caused by a fourfold increase in the price of oil, precipitated by OPEC’s embargo on oil exports. The crisis introduced a period of simultaneous high unemployment and high inflation that came to be known as “stagflation,” a hitherto unknown situation that perplexed economists and policy-makers. From 1974 until the end of the decade, unemployment rates ranged from 5.3% to a high of 8.4%. Although employment levels continued to climb, the number of unemployed Canadians increased over twice as fast, reaching 870,000 in 1979. At the same time, the cost of living more than doubled — \$1 worth of goods and services in 1970 cost \$2.17 by 1980. In real terms, average annual earnings grew less than 9% over the decade, to \$22,800, even though the

face value of workers’ paycheques rose 135%.

Contributing to the labour market’s difficulties in adjusting to such unfamiliar conditions were the newly emerging industrial economies in Asia. They presented a serious competitive threat to manufacturers in central Canada, but new markets to resource industries in the Western provinces. Meanwhile, conditions continued to deteriorate in the Atlantic provinces. Much of the work on which Maritimers had depended in the past was seasonal — farming, fishing, forestry — and many workers moved from one industry to another as the year progressed, putting together a sequence of seasonal jobs so they could remain employed throughout the year. As the industries supporting this cycle fell on hard times, year-round employment became difficult to sustain and pockets of chronic unemployment deepened in eastern Canada.

In the 1970s, Unemployment Insurance (UI) became a mainstay for many seasonal workers in the Maritimes and Quebec. Unemployment

Insurance had been introduced in Canada in 1940 to provide financial assistance to people who were unemployed. Amendments in the 1950s expanded the system considerably, but in 1971 it underwent a major restructuring. Under the new Act, UI was to provide “adequate” income support for workers whose earnings were temporarily interrupted. This entailed substantial liberalization of the system; for example, coverage became nearly universal, eligibility requirements were made easier, and special benefits such as maternity and sickness leave were provided. In some pockets of chronic hardship in eastern Canada, whole communities relied on UI to tide them over from one season of fishing or logging to another.¹⁰

The 1981-1982 recession

By the late 1970s, the federal government had decided that stagflation could not continue. In recent years, Canada had endured several years of high inflation (increases of more than 7% a year since 1973) combined with high unemployment rates (at least 7% since 1975). Given this context of continued inflation, interest rates were increased sharply. From 11.25% in July 1979, the bank rate was pushed to 14.0% by October 1979, reaching a peak of 21.03% in August 1981. Mortgage rates and consumer loan rates followed suit: in late summer 1981, Canadians were renewing their mortgages at almost 22%, and being asked to pay about 23% for consumer loans.

Economists generally agree that the recession that followed was the most severe to date since the Depression. GDP growth dropped in the third quarter of 1981 and was stalled throughout 1982. From 1981 to 1982, employment fell by 363,000, to just over 11.0 million. But with GDP growth resuming in 1983, by 1984 the labour market was showing signs of recovery.¹¹ Jobs lost in the previous

10. McNaught. 330.

11. Labour markets tend to lag up to one year behind the business cycle as measured by GDP.

two years were regained and then employment growth accelerated, to reach almost 13.2 million jobs by 1990, a 16% increase in overall employment since the beginning of the recovery.

Job growth in 1980s mostly in services

Employment was gained in some industries but not in others. Job creation in the 1980s occurred almost exclusively in the services-producing sector, where overall employment rose by almost 24% and was strongest in the community, business and personal services industries (up 33% or 1.1 million jobs).

Manufacturing industries endured significant turbulence in the 1980s as the sector tried to weather not only a severe downturn in the business cycle, but also a substantial restructuring. The effect of restructuring can be seen in the rate of job turnover as jobs shifted from declining plants and industries to those that were growing. Job turnover rates in manufacturing were definitely higher than they had been in the 1970s, and the evidence clearly suggests that restructuring was more important than the business cycle, generating both job gains and job losses in manufacturing.¹²

Inflation persisted throughout the 1980s, although the rate of increase slowed. The Consumer Price Index (CPI) rose 38% between 1980 and 1984, but by a more moderate 19% over the next five years. Nevertheless, during the 1980s, men's average earnings fell \$400 (to \$33,450 in 1989), but women's rose by almost \$2,300 (to \$19,760). This was due partly to

12. Baldwin, John. 1995. *Restructuring in the Canadian manufacturing sector from 1970 to 1990: Industry and regional dimensions of job turnover*. Analytical Studies Branch Research Paper No. 78. Statistics Canada Catalogue 11F0019MIE95078.

Employment Insurance in the 1990s

Since 1990, the federal government has introduced a number of significant changes to Canada's Unemployment Insurance plan. The system was renamed the Employment Insurance (EI) program, and it became self-financing as employers and employees took on the cost. New regulations designed to "tighten up" the system were made. Most significantly, the entrance requirement was raised, the benefit rate was reduced and workers who quit without just cause were completely disqualified.

There has been a steady fall in EI use throughout the 1990s. A 1998 survey of EI benefits coverage found that just under half (47% or 602,000) of unemployed Canadians were not eligible for EI. Those who had not worked in the last 12 months (47% of the total) or who had never worked (20%) accounted for most of the ineligible unemployed. About 12% had quit their previous job, 12% had been self-employed or worked in a job without coverage, and 10% had quit to continue their education.

Given these reasons, it is no surprise that 68% of youths aged 15 to 24 were ineligible for EI — about two-thirds of them had never worked or had quit their last job. Just under half (47%) of unemployed adult women were ineligible, mainly because they were new or returning entrants to the job market. In contrast, only one-third (34%) of adult men were not eligible for EI, principally because they had not worked for more than a year since their last job and had exhausted their benefits.

Whether lack of EI benefits leads to hardship is an important question. Over half (53%) of the ineligible unemployed were living with their parents or had a working spouse. Almost one-quarter (23%) were receiving social assistance, and over one-tenth (12%) were living on savings and investment or had help from friends and relatives. Those unable to rely on parents or a partner were finding it especially difficult to make ends meet: just under half reported that their income met only some of their household's regular living expenses.

- For more information, see *Employment Insurance in Canada: Recent trends and policy changes*, Analytical Studies Branch Research Paper No. 125, September 1998, Statistics Canada Catalogue 11F0019MIE98125; *Report on the Main Results of the Employment Insurance Coverage Survey, 1998*, Statistics Canada Product 73F0008XPE, July 1999.

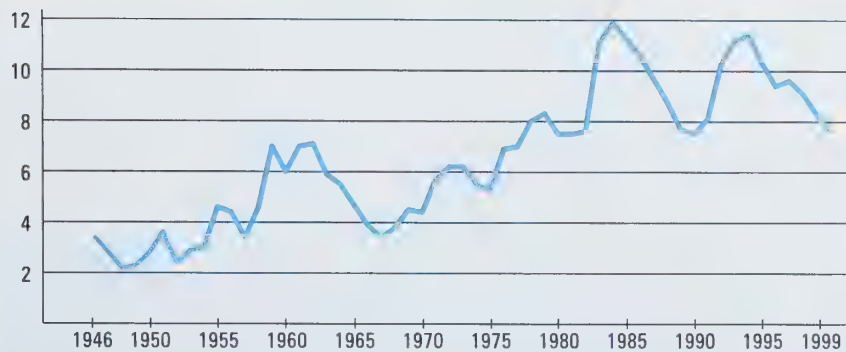
women's better levels of education, their shift to more full-time employment and their entry into better-paying occupations. But it also marked the beginning of a story that continued into the 1990s — the stagnation of men's labour force position.

The falling rate of male labour force participation has been apparent since the 1920s and 1930s, but it began to accelerate in the mid-1960s. Employment rates for adult men aged 25 and over fell below 85% in 1950, below 80% in 1971 and below 70% in 1991. In the 1970s and 1980s, the decline was probably partly due to older workers retiring early and tak-

ing advantage of special provisions available in public and private pension plans.

However, as the trend continued into the mid-1990s, concerns grew that older men were not leaving the workforce voluntarily. There is some evidence that this is true. Men aged 55 to 64 were at greater risk of permanent layoff than younger men, a likelihood that had been rising since the 1980s; they were also twice as likely to remain unemployed for more than a year after losing their job. Older men with lower education and those in regions of high unemployment (for example, Quebec and the

Unemployment rate (%)



Note: Data from 1976 on have been rebased to the 1996 Census of Population.
Sources: Statistics Canada, Catalogue 71-220-XPB (1995) and CANSIM Matrix 3451.

Atlantic Provinces) were especially vulnerable. By the 1990s, though, these job losses were concentrated in only a few major industry groups, most notably public administration.

A related trend that became noticeable in the 1980s was the worsening labour market position of workers under age 35. Since the late 1970s, the real earnings of young workers, as well as their relative earnings compared to older workers, have been falling in Canada and other industrialized nations. Young men have borne the brunt of this trend, although young women have also experienced relative declines in earnings.

The slow recovery from the 1990-1992 recession

The recovery of the 1980s was so long and sustained that some overconfident commentators began to wonder if the world was witnessing the death of the business cycle. They needn't have worried. By 1990, the economy was slowing down and 100,000 more people were jobless than in 1989. The situation worsened, and by 1993, with the unemployment rate at 11.4%, over 1.6 million Canadians were without work.

The recession of 1990-92 was not as deep as that of the previous decade, but it lasted longer. Downsizing — the permanent elimination of jobs — was significantly higher than it had been in the 1980s, especially during the recovery. Hardest hit were the public service (mainly health and government) and consumer services, each of which contributed about 40% of the increase in job destruction in the early to mid-1990s.

Ongoing "rightsizing" was not the only unfamiliar development in the post-recession period. The recovery was slow to gather momentum. GDP grew at a per capita average rate of 0.7% per year in the early to mid-1990s, less than half the yearly pace recorded in the 1980s (1.9%). Employment growth was much slower — only 1% per year compared with 2% in the 1980s — and there was not much full-time job creation until late in the decade. Although productivity increased, wages remained flat.

One reason for slow job creation was that firms organized their work, and therefore their workforces, differently. Increasing numbers of people worked on short-term contract, became self-employed, and so on.

This sort of arrangement allowed firms to control their labour costs by avoiding the hiring of new workers. This strategy greatly affected young people and recent immigrants, groups who are at a disadvantage when firms have little interest in taking on new employees. In addition, existing employees stayed put in the jobs they already had, leading to less of the "job churning" that presents new entrants with opportunities to join the workforce. Participation in the labour force fell, partly because young people stayed in school to improve their education and skills (and perhaps to avoid the hazards of the job market).

It is possible that the difficulty finding paid employment contributed to the remarkable growth of self-employment in the early and mid-1990s. Although total employment growth averaged only 1% per year, 58% of these new jobs came from self-employment; in contrast, full-time paid employment accounted for only 18%. The share had been the exact opposite in the 1980s, at 18% for self-employment and 58% for full-time jobs.

Another key development in the 1990s was women's emergence from the recession in a better position than men, relatively speaking. The gap in educational attainment between young men and women workers had virtually disappeared by the end of the decade. This contributed considerably to the rise in women's annual earnings (after accounting for industry of employment, region, full- or part-time work status) at the same time that men's were falling. Employment indicators were also better for women during most of the 1990s.

The late 1990s: Are new trends emerging?

In the last few years of the 1990s, employment growth accelerated substantially. By 1999, almost 15 million Canadians — 61% of the working-age

population — were employed. At the end of that year, the unemployment rate stood at 6.8%, its lowest level since early 1976. Furthermore, job growth was strongest in full-time employment, an important sign of economic health because full-time jobs tend to be more secure, have higher pay and better benefits. Most hiring occurred in the private sector, and much of the increased growth was in paid employment. Self-employment rose by less than 2%, one of the smallest increases in a decade.

Also suggesting a change in trends was the considerable increase in the employment levels of older workers aged 55 and over. In the three years 1997 to 1999, the number of older workers increased by almost 20%, greater than any other age group. In addition, it was men who accounted for two-thirds of the overall rise in the number of older workers.

Summary

Many new factors will influence the growth and development of the labour force in the new century. While these new developments will certainly affect some members of the labour force immediately, their impact over the longer term in the larger labour market is not easily foreseen. The last few years of the 1990s, for instance, have seen the slowing, if not the reversal, of at least two trends that had begun in the 1980s and apparently gathered strength in the 1990s: self-employment and declining employment rates among older men. The intense period of restructuring in the manufacturing sector during the 1970s and especially the 1980s — as old industries and technologies gave way to the new — suggests that while the process of change is arduous and unsettling for many, it ultimately creates employment opportunities for many more. An analogous period of transition

The declining labour market position of young workers

Real earnings of younger workers under age 35, as well as their relative earnings (compared to older workers), have been falling since the late 1970s both in Canada and other industrialized nations. In the 1980s and 1990s, expected real hourly wages and annual earnings declined for young men and women. Several theories have been presented to explain this phenomenon, mainly centred on the idea that employers feel obliged to pay higher wages to keep their experienced workforce from seeking employment elsewhere. However, an alternative reason may lie in the relative educational attainment of older versus younger workers.

In the past, older workers have had more experience and younger workers more education. By the 1990s, though, many older workers had the same educational level as younger workers in addition to more experience. The improved human capital (the combination of education plus work experience) of older workers thus plays a role in depressing relative earnings of young workers. In the 1980s, the educational improvement of older workers accounted for about one-quarter of the gap in wages between younger and older workers. In the early 1990s, it explained an even larger proportion of that gap: almost half for men and three-quarters for women.

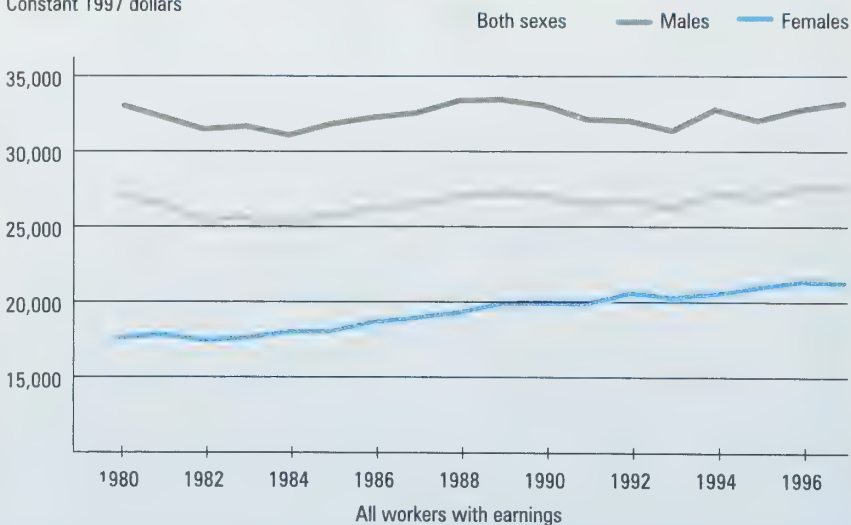
This phenomenon also suggests that it was not only the cost of new hires that encouraged firms to keep their experienced workforce intact. In the 1990s, the human capital of older workers outstripped that of younger workers; in other words, the existing workforce had more real and potential value to employers.

- For more information, see C. Kapsalis, R. Morissette, and G. Picot, *The return to education and the increasing wage gap between younger and older workers*, Analytical Studies Branch, Research Paper No. 131, March 1999, Statistics Canada Catalogue 11F0019MIE99131.

CST

Real average earnings of workers have been relatively flat for the last two decades

Constant 1997 dollars



Source: Statistics Canada Catalogue 13F0022XCB.

The dynamic growth of self-employment

Self-employment was an important contributor to job growth in the 1980s, and became a veritable engine of new employment in the early to mid-1990s. During the 1980s, the percentage of people who were self-employed increased to just under 13% of the labour force, and amounted to more than two million workers. Since self-employment accounted for 18% of net employment growth, and since nearly two-thirds of new self-employed workers were business owners with paid workers, starting a firm was responsible for a considerable increase in new paid jobs.

In the 1990s, self-employment growth accounted for more than three out of four new jobs. By 1997, over 2.5 million Canadians — 16% of the labour force — were self-employed. Unlike the previous decade, though, there was very little "spin-off" into paid jobs, because about nine in 10 of the newly self-employed worked on their own.

Most of the self-employed chose this type of employment; only 12% started their own business because there was no other suitable work available. Indeed, independence is the most common reason given for opting for self-employment over paid employment (42%). But it is not a guarantee of material success. Almost half (45%) of the self-employed made less than \$20,000 in 1995, compared with 26% of paid workers; on the other hand, 4% earned over \$100,000 that year, versus only 1% of workers who were not their own boss.

- For more information, see Z. Lin, J. Yates and G. Picot, *The entry and exit dynamics of self-employment*, Analytical Studies Branch Research Paper No. 134, March 1999, Statistics Canada Catalogue 11F0019MIE99134; "The self-employed," *Labour force update*, Catalogue 71-005-XPB, Autumn 1997.

from a goods-based to a services-based economy brought enormous benefits to most workers, as shown by the dramatic improvements in wages and salaries recorded in the 1950s and 1960s, when people moved into high-skilled jobs. Although real earnings have been comparatively flat for men since the 1980s, they have been rising for women as their workforce position improves. Over the long term, the employment rate of working-age Canadians has risen steadily, indicating that the economy is providing a sufficient number of jobs for the country's growing population. As for the regional inequalities that have

haunted Canada for so long, the "information economy," by rendering geographic location largely irrelevant, may help to ease the historical labour market imbalance between the Atlantic provinces and the rest of the country.



Susan Crompton is Editor-in-Chief and **Michael Vickers** is Research Officer with *Canadian Social Trends*.

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Community involvement: The influence of early experience

by Frank Jones

The participation of citizens in their communities through involvement in civic groups, service clubs, volunteer organizations and other institutions has long been a cornerstone of society in Canada. Such activities help foster social cohesion, healthy communities and governments, and may be especially important in times of rapid economic and social change. But what sort of people contribute their time and effort to the neighbourhood community association, the school council, or a soup kitchen?

Researchers interested in the larger issue of what motivates people to be "public-spirited" propose that influences during the formative years of childhood are important. Some studies have suggested that taking part in extracurricular activities in high school can influence the participation of young adults in political activities¹ and voluntary associations.² Others have found that a person's membership in voluntary organizations can be influenced by their parents' attitudes toward, and involvement in, volunteer work.³ Further suggestion of the importance of the formative

years is contained in a study that reported that the "moral climate" on U.S. college campuses influenced participation in community service, having the greatest effect on students who had no clear religious commitment.⁴ A subsequent study found that a high level of participation in community projects was associated with spiritual values and, not surprisingly, with the value placed on community service.⁵

Using data from the 1997 National Survey of Volunteering, Giving and Participating (NSVGP), this article considers the degree to which organized activities in youth may influence community involvement in adulthood. Particular emphasis is placed on the role that a religious background may play in an individual's level of activity.

Defining community involvement

Ten indicators of community involvement are identified in this article. The first four indicators are associated with what could be called "civic awareness" and include following the news regularly and voting in elec-

tions. The remaining six indicators are more demanding of people's time and are considered to be indicative of higher levels of personal commitment, and do to some extent measure participation in shared community values. These are "intensive community commitments" and include

1. Glanville, Jennifer L. June 1999. "Political socialization or selection? Adolescent extracurricular participation and political activity in early adulthood," *Social Science Quarterly*, 80, 2: 279-289.
2. Hanks, Michael and Bruce K. Eckland. Summer 1978. "Adult voluntary associations and adolescent socialization," *Sociological Quarterly*, 19: 481-490.
3. The authors also found that socioeconomic status had some effect. Smith, David Horton and Burt R. Baldwin. Summer-Fall 1974. "Parental socialization, socioeconomic status, and volunteer organization participation," *Journal of Voluntary Action Research*, 3, 3-4: 59-66.
4. Serow, Robert C. September 1989. "Community service, religious commitment, and campus climate," *Youth and Society*, 21, 1: 105-119.
5. Serow, Robert C. Summer 1990. "Volunteering and values: an analysis of students' participation in community service," *Journal of Research and Development in Education*, 23, 4: 198-203.

This article is based on data from the National Survey of Volunteering, Giving and Participating (NSVGP), conducted by Statistics Canada in partnership with several voluntary sector and government organizations¹ as a supplement to the Labour Force Survey in November and December of 1997. The survey questioned a representative sample of over 18,000 Canadians, aged 15 and over, about the ways in which they had supported friends, family and their communities during the previous 12 months.

In youth/when young: about ages 5 to 18. Respondents were asked, "Did you do any of the following things when you were in grade school or high school? Were you active in a youth group, religious organization, etc.?"

Religiously active/religious background: persons who were active in religious organizations when they were young. This characteristic is distinct from current attendance at religious services.

Community involvements: ten activities undertaken by an individual that can help to promote social cohesion and commitment to the community.

Civic awareness: following the news regularly; voting in municipal, provincial and federal elections.

Intensive community commitments: community-oriented activities that require more commitment and time than civic awareness activities. These involvements are: membership or participation in a service club or fraternal organization; membership or participation in a civic, community, neighbourhood or school organization; membership or participation in a political organization; regular attendance at religious services (at least once a month); doing unpaid work for a voluntary organization (formal volunteering); and, doing unpaid work without being a member of a voluntary organization (informal volunteering), such as helping neighbours or strangers.

Core community commitments: intensive community commitments excluding current attendance at religious services.

1. Collaborating organizations were the Canadian Centre for Philanthropy, Department of Canadian Heritage, Health Canada, Human Resources Development Canada, the Kahanoff Foundation's Non-Profit Sector Research Initiative, and Volunteer Canada.

membership or participation in service clubs, civic or community, organizations, political organizations, attendance at religious services, and doing volunteer work, either formally or informally.

Formative experiences affect the number of involvements

Canadian adults aged 20 and over reported that they had participated in an average of 4.4 out of the 10 possible types of community involvement, in the year prior to the survey. The average number of intensive community commitments was lower, amounting to 1.6 of a possible 6 types. However, approximately 18 million Canadians — about four-fifths

of the adult population — reported that they participated in at least one of these intensive community commitments.

Analysis of the NSVGP suggests that participation in organized activities during a person's formative years may encourage them to take on more community involvements in adulthood. Membership in youth organizations, such as Guides, Scouts or the 4-H Club, was associated with being involved in a greater number of community activities as an adult. People who had been members of a youth group reported an average of 4.8 total involvements, almost one more than adults who had not belonged to a youth organization.

People were also more likely to be involved in community activities in adulthood if they had participated in organized team sports as children or adolescents; this held true for both total community involvements and intensive commitments. It has been suggested that behaviours learned in sports, such as cooperation and working toward group goals, may account for a greater concern for the larger community and hence for participation in civic activities.⁶

An important formative influence for children is the example set by their parents. With a role model in the family, those persons whose parent had volunteered had one of the highest levels of community involvement, with an average of 4.9 total involvements compared with only 4.0 for those whose parents had not volunteered.

Religiously active youth more involved in community as adults

Adults who had been active in a religious organization in their youth had higher rates of involvement than those who had not, with an average of 5.1 involvements compared with 4.1. The difference between the two groups was even greater for intensive community commitments — 2.1 versus 1.3 activities.

6. Shields, David Lyle Light and Brenda Jo Light Bredemeier. 1995. *Character Development and Physical Activity*.

Since regular attendance at religious services is associated with community commitment, a fact well-documented in many studies on volunteering, it may be argued that a religious background encourages a person to be more empathetic and to engage in social action. Indeed, when the other formative factors are looked at again in terms of religious activity in youth, adults who had also been religiously active recorded consistently higher averages of community involvement than those who had not.

Current circumstances also dictate level of community involvement

Of course, a person's experiences as an adult influence the number of community activities that they participate in. Some of these factors include regular attendance at religious services, age, educational level and satisfaction with life.

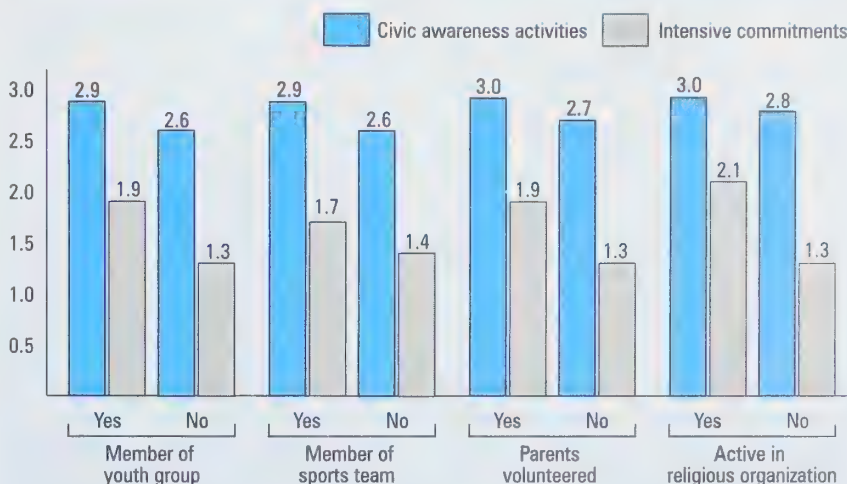
Much of the research on volunteering ties current religious practice to a higher level of community activity. The NSVGP data show that adults who regularly attended religious services had the highest number of community involvements of any group, with an average of 5.5 total involvements, or almost two more than the non-attenders. Further possible evidence of the enduring importance of childhood religious practice can be seen in those adults who, despite having no current religious affiliation, had higher rates of involvement in their communities if they had been members of a religious organization in their youth.

Age also appears to play a role, with the average number of community involvements adults reported rising steadily between the ages of 20 and 54, then peaking at 5.0 for people aged 55 to 74. Growing community involvement with increasing age may simply reflect normal changes over the course of an individual's life



Adults active in their youth have a higher average number of current community involvements

Average number of community involvements

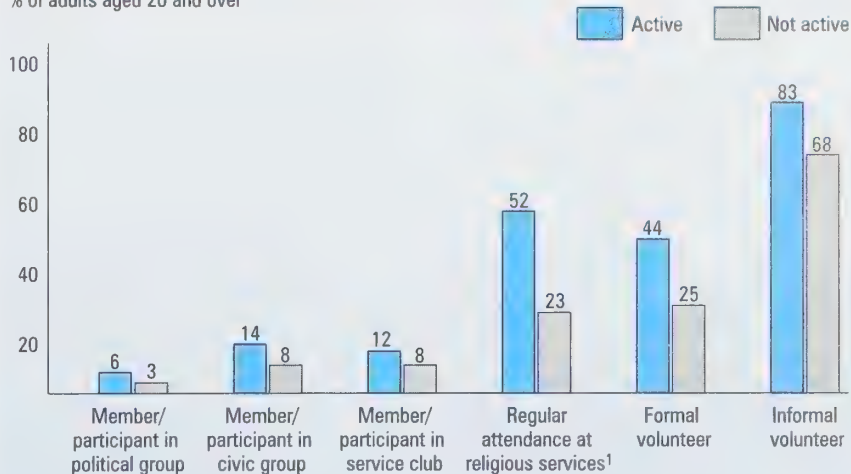


Source: Statistics Canada, National Survey of Volunteering, Giving and Participating, 1997.



Adults active in religious organizations in their youth are more likely to have intensive community involvements

% of adults aged 20 and over



1. Attends at least once a month.

Source: Statistics Canada, National Survey of Volunteering, Giving and Participating, 1997.

cycle,⁷ as well as the increasing amount of free time that people have available as they reduce their work hours or retire altogether.⁸ It could also be a result of the greater likelihood that older Canadians have a religious background.

7. Jones, Frank. "Parents who volunteer," *Perspectives on Labour and Income*, Statistics Canada Catalogue 75-001-XPE. (Forthcoming).

8. Jones, Frank. "Seniors who volunteer," *Perspectives on Labour and Income*, Statistics Canada Catalogue 75-001-XPE: 11, 3 (Autumn 1999).

Participation in community activities also rose with educational level. Adults who were university graduates reported the highest average number of total involvements, while those who had not completed high school had the lowest. The link between educational attainment and community activity has been well-documented, and is generally explained by the belief that teaching the value of citizenship is an indirect, if not a direct, part of most education programs. However, those with higher educational attainment had also been more active in religious organizations when young — 35% of university graduates compared with 26% of those without high school — therefore their greater community involvement could reflect their religious background as well as their education.

Another finding not easily explained is that those people who reported being “very satisfied” with their lives had more total involvements. Perhaps someone who is satisfied with their life is more active in the community because they want to help others get more out of their lives; alternatively, a person may take on a larger role in the community to enhance their own satisfaction.

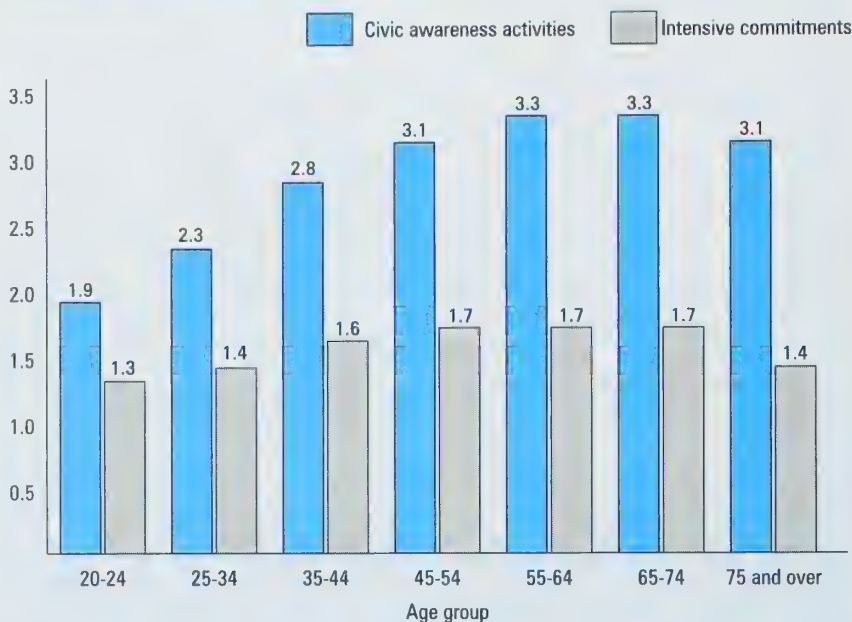
Understanding the influences on community involvement

It would appear that many factors, personal and social, contribute to an individual's level of community involvement. However, the relative importance of each factor is unclear, especially for the early experience, since those who had been religiously active when young had also been enthusiastic participants in many other organizations in their youth. A regression analysis was used to estimate the number of “core community commitments” a person might be expected to have, after the influence of various factors were controlled. Core community commitments were



On average, people aged 55 to 74 are most active in the community

Average number of community involvements



Source: Statistics Canada, National Survey of Volunteering, Giving and Participating, 1997.

the six intensive commitments excluding current religious attendance. Current religious practice was dropped from the index in order to concentrate on secular involvements.

The results show that there is a statistically significant association between organized activities in youth and community involvement in adulthood. When the other variables in the model are held constant,⁹ having a religious background during childhood or adolescence does prove to have a significant effect on the number of core community commitments. A person with a religiously active youth might be expected to have 0.14 more average core commitments than a similar person without a religious background.

However, the regression results also point to the even greater influence of other experiences in youth: having a parent who volunteered (0.27 more core commitments than someone without volunteering parents)

and being involved in youth groups (0.23). Team sports increased the expected average by 0.20.

However, the results suggest that the more important determinants of community involvement are adult experiences: having a university degree (0.39 more core involvements than those with less than high school graduation) and currently attending religious services regularly (0.31). After controlling for other factors in the model, age did not substantially increase the number of core involvements (0.04).

Summary

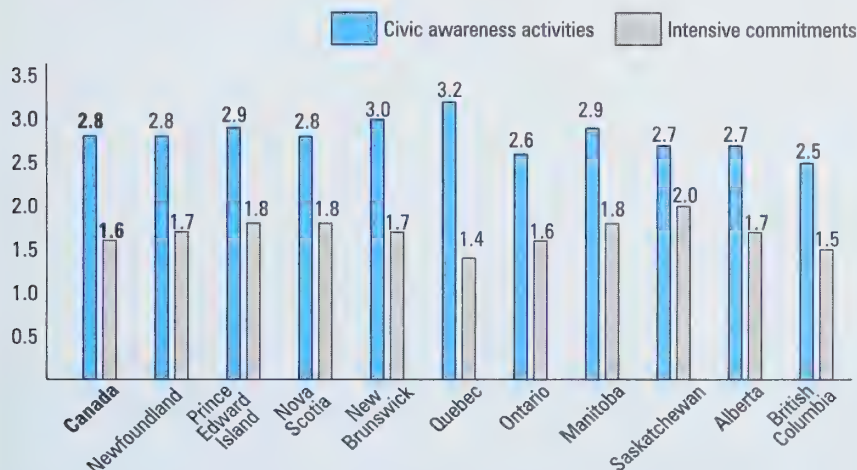
Data from the National Survey of Volunteering, Giving and Participation

9. The variables in the model were participation in religious organization when young, participation in youth groups, participation in team sports when young, parental volunteering, currently being very satisfied with life in general, age, sex, level of education, place of residence (rural or urban) and province.

CST Does geography make a difference?

The provinces with the highest rates of community involvement were Prince Edward Island, New Brunswick, Manitoba and Saskatchewan, with an average of 4.7 out of a possible 10 total community involvements. British Columbia had the lowest rate, with 4.0 total involvements. The average number of involvements was also higher among rural, compared with urban, residents — 4.7 versus 4.3 total involvements. A closer examination of only time intensive community commitments shows a similar geographic distribution, although the gap is slightly smaller.

Average number of community involvements



Source: Statistics Canada, National Survey of Volunteering, Giving and Participating, 1997.

suggest that an adult's tendency to participate in community activities is influenced by both their childhood and adult experiences. As a youth, involvement in youth groups and having parents who volunteered influenced later community participation; as an adult, education and current religious attendance were significant predictors of involvement.

Of particular interest is the role that a religious background plays in the decisions that guide people's participation in community activities. Though association does not imply causation, for almost every indicator of community involvement, participation was higher for those with a religious background than for others. So far unexplored in community par-

ticipation research, religious background was found to be a significant predictor of the number of core commitments a person was likely to have and may prove to be an important missing link in explaining volunteer and other community behaviour.



Frank Jones is a senior analyst with Labour and Household Surveys Analysis Division, Statistics Canada.

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The other side of the fence

by Frances Kremarik

"Hello, ma'am, I'm Constable Benton Fraser of the Royal Canadian Mounted Police. May I be of any assistance?" These oft-repeated lines from the Canadian television program "Due South" often brought a smile to viewers as the Mountie attempted to be friendly in the tough streets of Chicago. It evoked sentiments of a sense of community and of people being good to their neighbours that is now not considered commonplace. But is a friendly "good morning" or chat by the backyard fence a thing of the past, or is the practice still with us?

Where we live, and who we are, all influence how we interact with our neighbours. Who is more likely to say hello, the fifty-year-old family man in the suburban bungalow or the twenty-something woman living with roommates in a downtown apartment? Many geographers believe that

CST

What you should know about this study

This article uses data from the cross-sectional component of the 1996-97 National Population Health Survey (NPHS). The NPHS asked almost 82,000 respondents to answer in-depth health questions covering issues such as health status, use of health services, activity limitations, use of medication, risk-taking behaviour and mental and psychological well-being. Part of the component related to well-being asked respondents about the extent of their social support, as measured by their frequency of contact with other people (adult children, family, friends, neighbours) and civic institutions such as volunteer organizations and places of worship. This study draws on the information gathered from almost 66,500 respondents aged 20 and over, representing 21 million adult Canadians, about the frequency of contact with neighbours.

Contact/interaction: the respondent either talked in person or on the phone with a neighbour at least once during the preceding 12 months. Contact could include social activities, but did not include actions such as waving. *High level of contact* refers to contact at least once a week (including every day). If a respondent did not report contact at least once in the previous year, they were classified as having "no contact" with their neighbours.

An exploratory regression analysis was run to estimate the relative importance of the variables discussed in this article (housing type, family structure, etc), but it did not produce conclusive results. This suggests that factors not captured by the demographic and socio-economic variables in the survey may be key predictors of interaction.

housing design has a direct impact on how we interact with our neighbours. When a porch opened onto the street, people were likely to sit there and talk to their neighbours as they walked by. Houses with the garage attached to the front, especially those equipped with electric garage door openers,

mean that people often leave their cars and go directly into the house without having any dealings with their neighbours. In multi-unit dwellings, designs that do not emphasize a common area like a main lounge or a playground make it difficult for people to meet and

Experts have struggled during the past few decades to create a definition that fully encompasses all of the aspects of a neighbourhood; as a result, it has been difficult to define a neighbourhood's boundaries. Generally speaking, it is a district within an urban area, usually with an identifiable subculture to which a majority of the residents conform.¹ More particularly, neighbourhoods are functional areas where residents can identify with the attitudes, lifestyles and local institutions (like public libraries or places of worship) that are part of the locality.² Neighbourhoods can be established in three different ways: 1) the social acquaintance neighbourhood that consists of nearby streets; 2) the homogeneous neighbourhood that consists of residences of similar quality like a subdivision; 3) the unit neighbourhood that also includes commercial and social activities like stores and schools.³

Because there is not an agreed set of parameters to establish a neighbourhood's limits but a number of highly interpretive conditions, it is difficult to agree where a neighbourhood's boundaries are. This is mainly because the area not only has a physical existence, but a psychological one as well: the physical existence is defined by spatial limits like roads or rivers, while the psychological

boundaries are delimited by social interaction.⁴ Thus, one person's neighbourhood may be every house on the same street for one block and another person's may be his street and the next street over for three blocks. People living in apartment or townhouse complexes may see it as every building in the complex, or just their building. Not only is the 'neighbourhood' a personal definition that is as unique as each individual, it is dynamic in nature and its boundaries will normally change over time.

Although a 'neighbourhood' is considered an urban phenomenon, this does not exclude rural residents from having neighbours. Some rural inhabitants would argue that they live in neighbourhoods; however, the literature has focussed on the urban habitat.

establish social relationships within the neighbourhood.

Using data from the 1996-97 National Population Health Survey (NPHS), this article asks whether we talk to our neighbours and how often we do so. It focuses on the role that housing type, family life cycle and place of residence may play in neighbourhood interaction.¹

Changing neighbourhoods changed social interaction

The automobile, in conjunction with new building technologies, changed the Canadian urban landscapes in the 20th century. In the early 1900s, most urban residents lived in low-rise apartment buildings of less than five stories, in row housing, or in single or semi-detached houses. In an era when the main methods of transportation

were horse-drawn tramways, electric streetcars, and simply walking, people in cities tended to live close to their workplaces in order to reduce the amount of travel time.² With the explosion in automobile ownership following World War II, people could move to the edge of the city and enjoy some of the amenities of "country living" without increasing their commuting time. This development greatly enlarged the city's land area, often without a corresponding increase in population.

Meanwhile, technological advances allowed the construction of higher buildings. Initially, they were built to provide more commercial office space on expensive downtown land, but following World War II it became common to construct residential high-rises as well. These forces helped

to create suburbs filled with low-density single detached houses, and city cores with high-density multi-storied apartment buildings.

1. Johnston, R. J., D. Gregory, and D. M. Smith, eds. 1994. *The Dictionary of Human Geography*, 3rd Edition. 409.
2. Hartshorn, T. A. 1992. *Interpreting the City: An Urban Geography*, 2nd Edition. 247.
3. Harries, K. D. and R. E. Norris. 1986. *Human Geography: Culture, Interaction and Economy*. 156.
4. King, L. J. and R. G. Golledge. 1978. *Cities, Space, and Behaviour: The Elements of Urban Geography*. 248.

1. Previous studies of people's contact with other residents of the neighbourhood have identified the importance of the type of housing a person occupies, length of residence at that address, and the proximity of family members in the neighbourhood. Only the first can be confirmed by this study because data for the other variables are not available from the National Population Health Survey.
2. Although there was an established downtown business core, land use planning by-laws were not the norm until the early 20th century; as a result, neighbourhoods often combined both commercial and residential land uses. Leung, H. L. 1989. *Land Use Planning Made Plain*. 217-218.

Neighbourhood interaction most common among house dwellers

In 1996-97, three-quarters of Canadian adults aged 20 and over had some contact with their neighbours, either talking in person or on the phone or engaging in social activities. Just over half had a high level of contact, that is, they had some interaction at least once a week.

People living in single detached homes were most likely to have contact. About 82% of residents in single detached houses reported having at least some interaction with their neighbours, but less than 62% of apartment dwellers did so. In between these two extremes were people living in mixed housing — duplexes, semi-detached houses, row housing or garden homes — 72% of whom had had some contact with others in the neighbourhood.

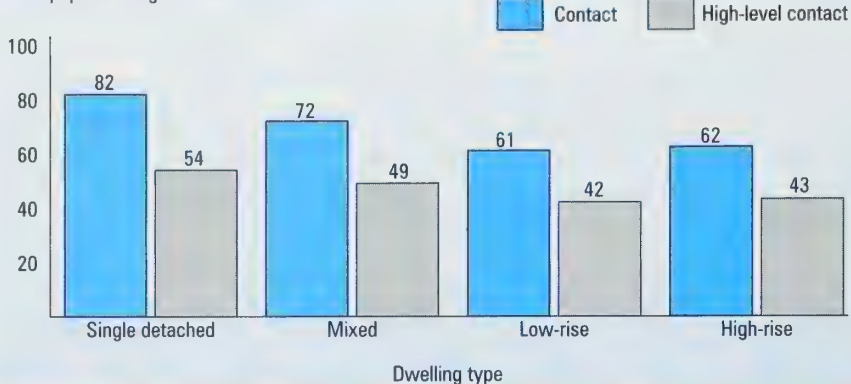
Not just contact but the frequency of contact differed by housing type. For example, over half of residents in single detached homes had high levels of interaction, but only 42% of apartment dwellers stopped to chat to their neighbours once a week or more.

Because the type of housing people choose depends on what they can afford, income could play a role in levels of neighbourhood interaction. The data show that about three-quarters of people in each of the top four income quintiles had at least some contact, but this dropped to 59% in the lowest income quintile. The same pattern holds for high level contact: about half the respondents in the four middle and upper income quintiles reported a minimum of weekly contact with the neighbours, but people in the lowest quintile recorded significantly less (41%). However, when dwelling type is linked to income, the pattern is not as clear. People in the lowest income quintile living in single detached or mixed housing still had lower rates of contact; in contrast, the differences between income quin-

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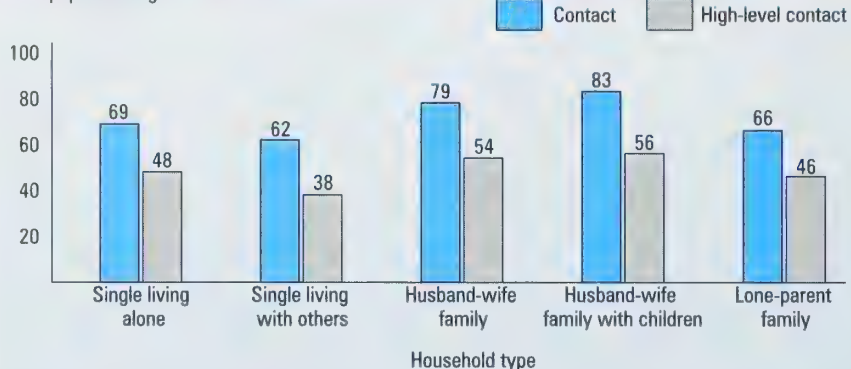
People living in single detached homes...

% of population aged 20 and over



...and husband-wife families have more interaction with neighbours

% of population aged 20 and over

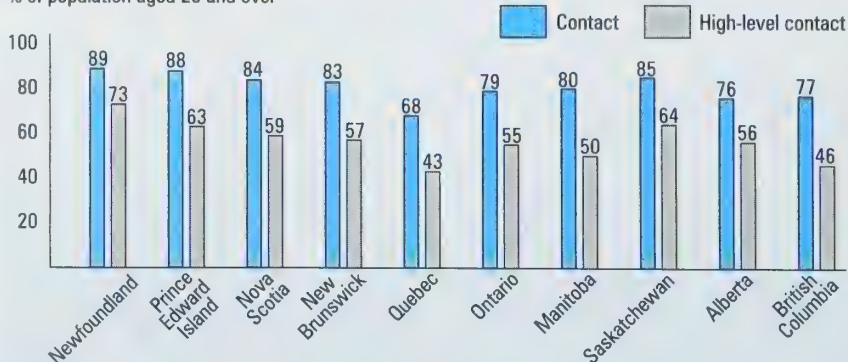


Source: Statistics Canada, National Population Health Survey, 1996-97.

CST

People in the Atlantic provinces talk to their neighbours most often

% of population aged 20 and over



Source: Statistics Canada, National Population Health Survey, 1996-97.

tiles were small for residents of low-rise apartments, and disappeared for residents of high-rise buildings. This finding could reflect the influence of housing design, and possibly the impact of lifestyle choices among higher income Canadians.

Families are friendlier neighbours

Interaction with one's neighbours offers a level of social support in addition to that provided by friends and family. Since it is a link formed by geographic proximity as opposed to shared interests,³ it can ensure that security and assistance are available close by. For example, a family can go away for the weekend knowing that a neighbour will keep an eye on their house, or a parent can ask the elderly couple next door to mind the baby while she goes to school to pick up a sick youngster.

The data on household structure certainly suggest that people who may have a greater need for social support interact more frequently with the neighbours. People in families with two parents and children, and families with two spouses only, had the highest rates of contact with the neighbours (83% and 79% respectively). A single person living with others was least inclined to interact (62%). In between these two extremes were single people living alone (79%) and lone parents (66%).

For the most part, a person's age has little impact upon how often an individual interacts with the neighbours. People in their twenties, however, had the lowest rate of interaction with their neighbours (65%), and the lowest rate of high level contact (39%). In contrast, as people reach their sixties, they tend to be more friendly: 82% had some contact

and about 62% had a high level of contact. When gender is considered in conjunction with age, there is no significant difference between men and women's level of interaction.

A lower rate of contact among younger Canadians probably should not be interpreted as "anti-social" behaviour; it more probably reflects their stage in life. Many people in their twenties are students or are in the process of establishing their careers, and are often transient between residences. Knowing that they are only temporary residents may lessen the need, or even the desire, to interact with the neighbours. Also, younger people may have non-standard hours, thus reducing the possibility of even meeting the neighbours. Likewise, Canadians in their sixties are often beginning retirement, and have more time available to spend at home, raising the likelihood of encountering the neighbours.

Newfoundlanders have highest rates of contact

Place of residence also affects a person's neighbourliness. While 75% of urban residents had some contact with their neighbours, over 80% of rural residents did. Furthermore, rural residents were more likely (56%) to have a high level of interaction with their neighbours than urban residents (50%).

Provincially, Newfoundlanders are the most friendly: 89% had at least some contact with their neighbours, 73% had weekly and over 43% had daily contact. Quebecois had the lowest rates: only 68% had any interaction, although 43% talked to their neighbours at least once a week.

Other social factors can certainly influence a person's tendency to be a friendly neighbour. For example, people who have lived in the same home for a long time are obviously more familiar with their neighbours than somebody who has recently moved

into the area. Data from the 1996 Census suggest that the provincial rates of contact may be reflecting this "rootedness." About two-thirds or more of people in eastern Canada lived in the same house that they had occupied five years previously, while in Alberta and British Columbia the proportion was 50% or less.

The same type of reason probably lies behind the importance of immigrant status. Recent immigrants may be less willing to interact with neighbours until they are more familiar with Canadian social norms and expectations. Indeed, immigrants who had been in Canada for less than 10 years had a noticeably lower level of contact with their neighbours (65%) than people had been born in Canada (77%) and immigrants who had lived in Canada for 10 or more years (75%).

Since churches, temples and synagogues are often a fundamental part of a neighbourhood, attendance at religious services tends to expand a person's social bonds by increasing regular interaction with other community members. This familiarity then results in more interactions outside the religious setting, and can grow to include neighbours who are not members of the same congregation. The NPHS data show that the more often that people attend religious services, the more frequently they have contact with their neighbours, and the more often they do so every day. This pattern is notable among all age groups.

Summary

We do not know whether Canadians are the good neighbours we believe we were in days gone by. However, it is certain that many factors that influence social interaction within the neighbourhood have changed. Society is distinctly more mobile: ties to our neighbourhoods may not be as strong, because we have not lived

3. Jakle, J. A., S. Brunn, and C. C. Roseman. 1976. *Human Spatial Behaviour: A Social Geography*. 49, 54.

there for a significant length of time, and because we are living in more self-contained homes.

This study has found that Canadians, especially husband-wife families, have contact with their neighbours, but the extent and frequency of such interaction depends strongly upon their type of dwelling. Apartment dwellers are less neighbourly compared to residents of single detached homes or mixed housing. Yet apartments are built in urban areas because land costs are high and planning mandates promote mixed housing types. Another strong influence is the province of residence: eastern Canadians, especially Newfoundlanders, are the friendliest neighbours in the country.



Frances Kremarik is an analyst with Housing, Family and Social Statistics Division, Statistics Canada.

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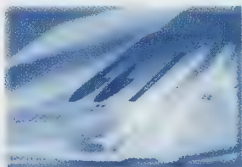
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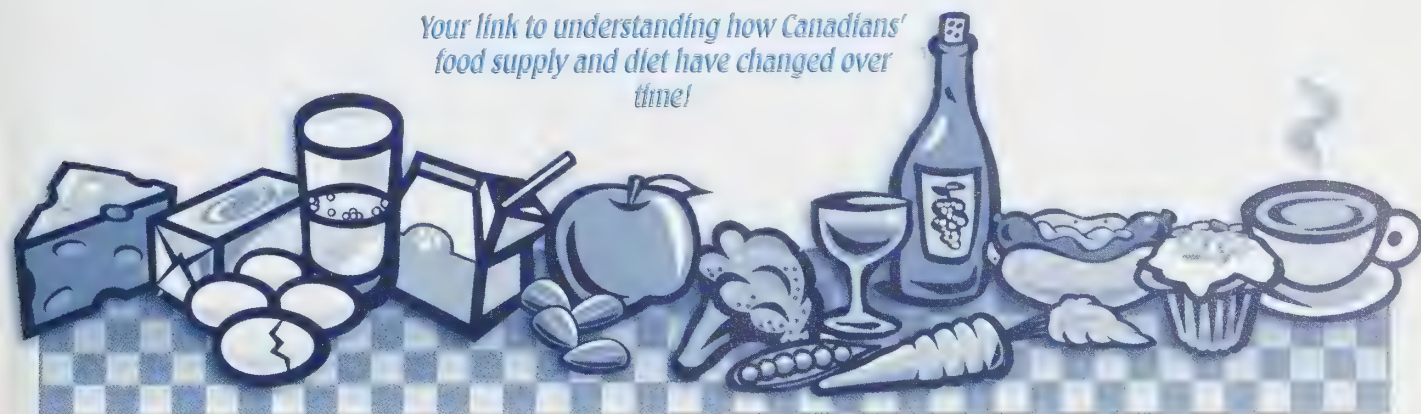
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Being there: The time dual-earner couples spend with their children

by Cynthia Silver

In the majority of Canadian families with children, both parents now work outside the home and an increasing number of them have full-time paid employment. This phenomenon is not likely to change: over three-quarters of parents employed full-time with children under 15 agree that "both the man and the woman should contribute to the household income." The new attitude to sharing financial responsibility for the family has been accompanied by an overwhelming opinion that raising the children is also a shared responsibility.¹

This article uses the 1998 General Social Survey to examine the time parents spend with their children in families where both mother and father are employed full-time, with particular emphasis on the father's time. "Time with children" encompasses both time devoted explicitly to childcare and time spent in the child's presence. The analysis is restricted to intact families — those in which the children are the natural children of both parents — to avoid any possible

effect of stepparenting on differences between women's and men's time with children.

Fewer full-time employed parents among those with young children

About two-thirds of full-time employed parents with children were dissatisfied with the balance between their job and home life. Fathers and mothers alike blamed their dissatisfaction on not having enough time for family, but many also complained of spending too much time on the job.

Families can theoretically make more time available to young children by working fewer hours for pay. In fact, this is what many Canadian mothers do. In families with young children where mothers are employed full-time outside the home, they report fewer hours of paid work on average than either their spouses or women with older children.

Working fewer hours for pay allows mothers to devote much more time than fathers to their small children. Mothers employed full-time and with a child under 5 spent almost six and

one-half hours each day with their child, and fathers over two hours less.² The gap narrows for parents of older children. Mothers with a child aged 5 to 8 were with their children about 1.5 hours more than fathers, and 50 minutes more if the child was aged 9 to 12. When children reach age 13 to 14, the time gap between parents has closed, mainly because the mother's time has fallen substantially. Both mothers and fathers spent about 2 hours and 40 minutes a day with young teens.

Of course, both parents are often with their children at the same time, usually because they are engaged in the same activities. For about half the time that fathers spent with their kids, the mothers were also present. Mothers were less likely to be with their husbands when they had

1. Statistics Canada, General Social Survey, 1995.

2. These estimates of hours per day are averaged over a seven-day week. Parents tend to spend more time with their children on weekends than on weekdays.

younger children with them; 40% of mothers' time with pre-schoolers was spent in their husband's company, compared with 63% of their time with young teens. Fewer average hours of employment among mothers with very young children may underlie this difference.

What are parents and children doing together?

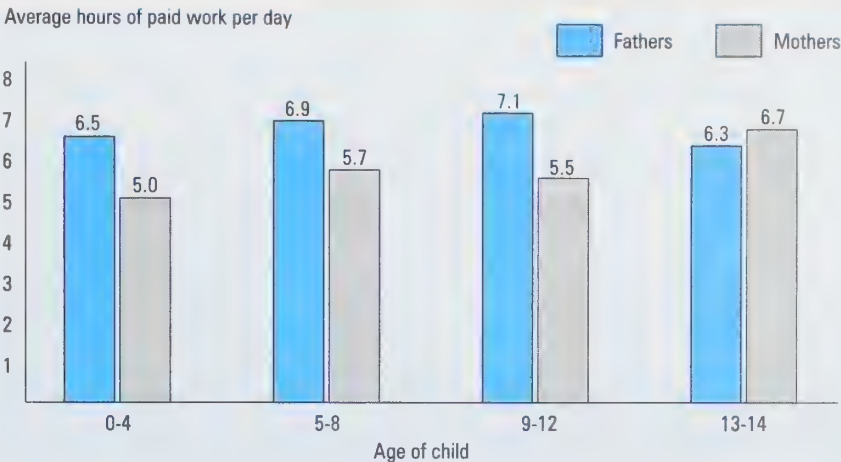
Time with their children does not necessarily mean that the child is the central focus of the parents' activity. A parent may be accompanied by a child while grocery shopping or shoveling the driveway. And in fact, dual-earner couples employed full-time were very often doing some form of household work when they were with their children. This household work certainly encompassed childcare but it also included activities like shopping, cleaning and household maintenance.

For example, fathers of pre-schoolers engaged in 2.2 hours per day of household work while they were with their children, of which only 1.5 hours was solely dedicated to childcare. The figures for mothers were 3.7 hours and 2.5 hours per day, respectively. The time on household activities while with the children dropped steadily for parents of older children, partly because less childcare was necessary and partly because a parent was less likely to be with an older child while doing other kinds of household work.

Nature of childcare shifts as child gets older

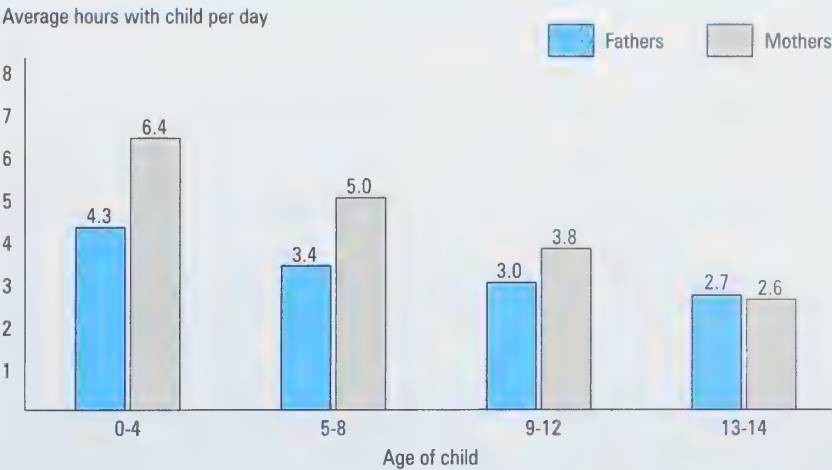
Taking care of children under age 5 can be very intensive because it is characterized by personal care (such as feeding, washing, dressing, medical care) and also by playing. Personal care is the more time-consuming activity for both parents: mothers devoted 91 minutes and fathers 47 minutes to these tasks.³ On the other

CST Fathers of young children reported more hours of paid work than mothers



Note: Both parents are employed full time.
Source: Statistics Canada, General Social Survey, 1998.

CST The gap in time spent by mothers and fathers with their children narrows as the child grows older



Note: Both parents are employed full time.
Source: Statistics Canada, General Social Survey, 1998.

hand, both parents each spent about 30 minutes per day playing with their preschool children.

When children are between age 5 and 8, childcare time with them drops to about an hour for fathers and one and one-half hours for mothers. At this age, other forms of childcare emerge: helping and teaching, reading and talking, and travel. This

leaves fathers spending 18 minutes providing personal care to their children, and mothers 48 minutes on average.

3. Note that this is the time parents spent "in person," that is, in the child's presence. Parents actually dedicated more time to many childcare functions because some of these events take place when the child is not there.

With children aged 9 to 12, fathers spent 34 minutes per day providing childcare and mothers 54 minutes. Fathers dedicated only about 10 of these minutes to personal care, while mothers spent 19. As one would expect, less childcare time was reported for children in their early teens, and even then the most prevalent childcare activity was chauffeuring them to various places.⁴

Mealtime brings the family together

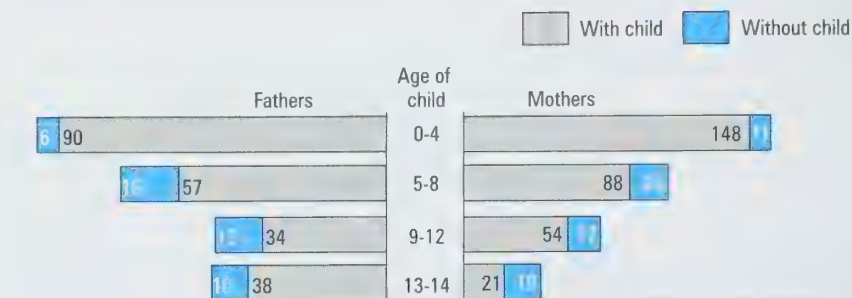
After childcare, having meals together is the most common activity shared by parents and their children. Dual-earner couples spent about an hour a day sharing meals with their preschoolers — fathers averaged 50 minutes and mothers an hour and 15 minutes — either eating at home, in restaurants, or socializing over a meal with friends or family. This average dropped for older children, to less than 40 minutes for parents of teens. Younger children were often close by when meals were being prepared or cleaned up, mainly with their mother, while teens were less likely to be around when these tasks were being done.

Fathers generally spend less of their leisure time with their children

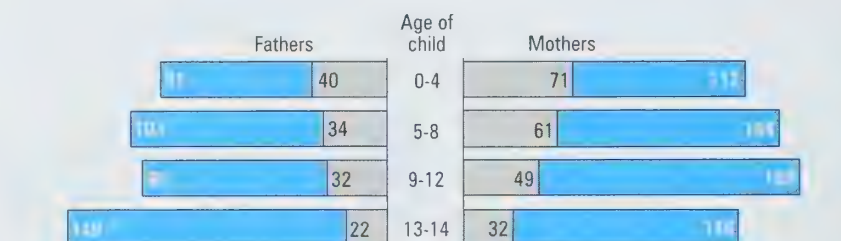
When parents employed full time reported their leisure time — including such things as reading, watching television, socializing,⁵ participating in sports, doing hobbies, or playing games — it was apparent that mothers had less leisure time than fathers. They also devoted a larger proportion of that time to their children. For

CST Both parents spend more time with younger children

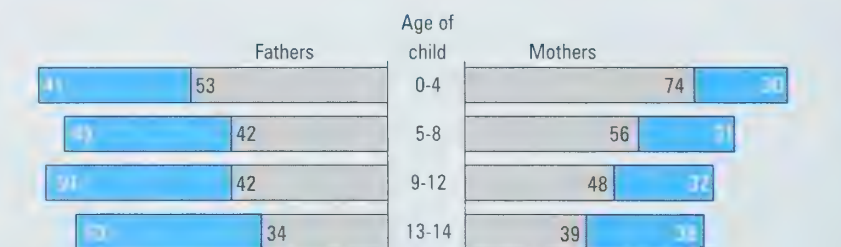
Average minutes per day spent by parents on childcare



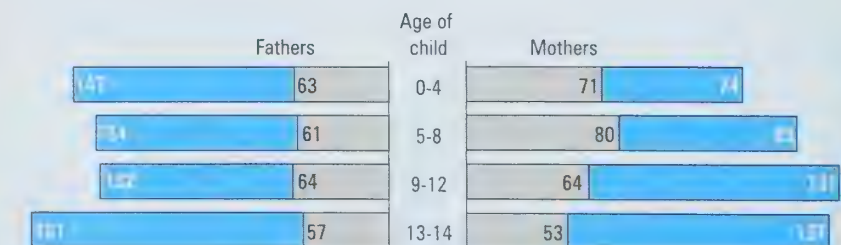
... on other household work and shopping



...at mealtime¹



... on leisure time²



4. See Clark, Warren. "Traffic report: Week-day commuting patterns," *Canadian Social Trends*, Spring 2000.

5. Excludes eating in restaurants and socializing over meals in private homes.

1. Meal time includes restaurant meals and socializing with meals in homes.

2. Leisure time excludes restaurant meals and socializing with meals in homes.

Note: Both parents are employed full time.

Source: Statistics Canada, General Social Survey, 1998.

This article is based on data from the 1998 General Social Survey on time use. The survey interviewed almost 11,000 Canadians aged 15 and over in the 10 provinces; it provides information about how people spent their time and who was with them during one day's activities. This information allows examination of how parents spent time with their children. To keep this article brief, the study population is restricted to families in which both parents worked full-time for pay (that is, 30 hours or more per week), and in which the children are the biological offspring of both husband and wife. Both married and common-law partners are included among the dual-earner couples studied here.

The "time with children" concept used in this study is broader than the time dedicated explicitly to childcare. For example, a respondent may be preparing a meal while their child is snacking in the kitchen. In this survey, any children under 15 present in the same room were reported as spending time with the respondent, even if they were not participating in the same activity. By focussing on all time spent in the presence of one's own children, this article avoids parents' subjective assessments about what constitutes "childcare" time and who is minding the kids.

Average time spent with children in a given age group: the total sum of minutes when one or more children in a given age range was with the parent, divided by the number of parents who have a child that age. The average time estimates should not be interpreted as the amount of time a parent spends with a single child; this is because parents may have more than one child in the same age group, or may have children in other age groups such that some activities may be due to the presence of these other children. Although it does not isolate time devoted exclusively to one child, this approach does allow for an examination of the effect of a child's age on parental time use.

Childcare: The childcare time described in this study is restricted to the primary activity reported by a parent. The four basic categories of childcare activities are: personal and medical care; playing; helping, teaching; reading and talking; and travel for the child. For example, bathing or dressing a small child, reading to an older child, or driving a child to dance lessons would constitute childcare. In addition, a parent may be providing care for a child while the child is not present, for example, going to pick them up at the babysitter's or checking over their homework.

parent's time is allocated. Both parents spent more time with younger children than with older children, although it is true that fathers were with them for less time than mothers. Much, but not all, of this difference is related to fathers' longer hours of paid work. As the children grow older, parents devote less time to them and more to paid work.

Indeed, gender differences appear to be transitory among parents working full time, disappearing as the children get older. The differences in time spent with young children appear symptomatic of the degree to which mothers in dual-earner couples have retained the primary responsibility for keeping house, recording about one hour per day more than fathers on household work other than childcare. Nonetheless, the amount of time fathers spend with their children reveals a high level of paternal involvement in family life that should not be overlooked.



Cynthia Silver is a senior analyst with Housing, Family and Social Statistics Division, Statistics Canada.

For example, fathers of preschoolers recorded over an hour more leisure per day (3.5 hours) than mothers (2.4 hours). And although fathers spent almost as much leisure time with their preschoolers (1.0 hours) as did mothers (1.2 hours), it amounted to less than one-third of their available leisure time compared with almost half of mothers'. A similar gap was

observed among parents of children aged 5 to 8. The gender gap was small for parents with older children.

Summary

While gender roles have some impact on how dual-earner couples with full-time employment spend time with their children, the child's age appears to have the largest impact on how a



PEI leads in charitable donations

Residents of Prince Edward Island were the most generous donors to charities in 1998, reporting a median donation (half donated less, half more) of \$280. Newfoundlanders, who since 1991 had previously had the highest median donation, fell to second place (\$270), followed by residents of New Brunswick and Nunavut (tied with \$260). Nationally, 5.4 million Canadians reported charitable donations on their income tax returns, an increase of 2% over 1997; the total value of donations increased by almost 8%, to \$4.6 billion dollars.

Small Area and Administrative Data Division

Client Services
(613) 951-9720



More self-employed couples working together

Self-employment is increasingly common among dual-earner couples, with one-third of 3.6 million such couples having at least one spouse who was self-employed. In half of these couples it was the husband who was self-employed and the wife a paid worker, in one-fifth of the couples it was the wife who was self-employed and in the remainder both spouses were self-employed. Where both spouses were self-employed, 68% of the couples were running a business together: 28% of these

couples were operating in the agricultural sector, 15% in retail businesses, 9% in professional services and 8% in accommodation and food services. On average, self-employed husband-and-wife teams worked a combined 87 hours per week, about 13 hours more than dual-earner couples with paid jobs. Couples running food, beverage and accommodation businesses put in more than 100 hours per week combined; those in management, administration and financial services reported the shortest working hours, about 70 per week.

Perspectives on Labour and Income

Winter 1999

Catalogue 75-001-XPE



Cooler drinkers refresh spirits sales

In 1997-98, thirsty cooler drinkers fuelled the first increase in overall sales of spirits in a decade. The total volume sold increased 6% over 1996-97 to 138 million litres, due in large part to an 81% increase in purchases of spirit-based cooler drinks. Beer was Canadians' drink of choice however, with more than 2 billion litres sold. Although domestic brewers accounted for 96% of sales, they lost some ground to imports, whose sales grew by 12%. Wine was the second most popular tipple, with sales up 3% to 260 million litres; imported wines, with sales of 140 million litres, were slightly more popular than domestic wines, which sold 120 million litres. Although white

wines were slightly more popular than red, sales of white wines declined 2% over the previous year whereas sales of red wines increased by 10%.

Control and sale of alcoholic beverages in Canada

Catalogue 63-202-XIB

(613) 951-0767



Film and video exports grow

Exports of Canadian-produced films and videos by distributors in Canada exceeded \$100 million for the first time in 1997-98. When sales of non-Canadian films and videos by domestic distributors are included, the total value of sales abroad was more than \$130 million, or more than four times the sales in 1991-92. More than half (57%) of the distribution revenues for Canadian-content productions come from licensing fees and sales abroad, compared with only one-third at the beginning of the 1990s. However, revenues from foreign sales accounted for only a small part of the Canadian film and video industry's total income of \$1.8 billion for 1997-98; and the film and video market in Canada itself is still almost completely dominated by foreign productions, which accounted for about 90% of total sales.

Film and Video Distribution and Wholesaling Survey

Culture, Tourism and the Centre for Education Statistics

(613) 951-1569



Working longer hours puts health at risk

Switching from a standard work-week of 35 to 40 hours to a longer one increases the risk of weight gain, smoking and alcohol consumption, according to the National Population Health Survey. Between 1994-95 and 1996-97, 21% of men and 8% of women workers started working longer hours. About 16% of men who began working more than standard hours experienced an unhealthy weight gain, versus about 8% for those who maintained a standard schedule; for women there was no association between longer hours and unhealthy weight gain. For both sexes, moving to longer hours resulted in increased smoking; 14% of men increased their daily smoking habit, and 16% of women smoked more, versus 8% and 6% among those who did not increase their hours. Men who increased their cigarette consumption smoked on average 10 more cigarettes a day, and women smoked eight more per day. Alcohol consumption also increased among 36% of women workers who worked additional hours, compared with 23% for those who maintained standard hours, with those whose alcohol consumption increased consuming an average of three more drinks per week; however, working more hours was not significantly related to increased drinking among men.

Health Reports

Autumn 1999

Catalogue 82-003-XPB

(Internet: 82-003-XIE)

S O C I A L I N D I C A T O R S

	1992	1993	1994	1995	1996	1997	1998	1999
LABOUR FORCE								
<i>Labour force ('000)</i>	14,362.2	14,504.5	14,626.7	14,750.1	14,899.5	15,153.0	15,417.7	15,721.2
<i>Total employed ('000)</i>	12,760.0	12,857.5	13,111.7	13,356.9	13,462.6	13,774.4	14,140.4	14,531.2
Men	6,970.4	7,029.9	7,177.5	7,298.5	7,346.0	7,508.3	7,661.4	7,865.8
Women	5,789.6	5,827.5	5,934.2	6,058.4	6,116.6	6,266.2	6,479.0	6,665.3
<i>Workers employed part-time (%)</i>	18.7	19.3	19.0	18.9	19.2	19.1	18.9	18.5
Men	10.6	11.2	10.8	10.8	10.8	10.5	10.6	10.3
Women	28.4	29.0	28.9	28.6	29.2	29.4	28.8	28.0
Involuntary part-time ¹	29.2	31.9	31.4	31.5	34.5	31.1	29.2	26.7
Looked for full-time work	--	--	--	--	--	10.6	10.0	9.0
% of women employed whose youngest child is under 6	15.8	16.1	16.0	15.9	15.9	15.6	15.0	14.7
% of workers who were self-employed	15.0	15.8	15.5	15.7	16.1	17.1	17.2	16.9
% of employed working over 40 hours per week ²	20.3	21.0	21.7	21.7	21.2	18.9	18.9	18.4
% of workers employed in temporary/contract positions	--	--	--	--	--	9.4	9.8	10.0
% of full-time students employed in summer	52.4	49.9	50.3	50.2	47.9	45.7	47.2	48.8
<i>Unemployment rate (%)</i>	11.2	11.4	10.4	9.4	9.6	9.1	8.3	7.6
Men aged 15-24	19.6	19.6	17.9	16.3	16.9	17.1	16.6	15.3
25-54	10.7	10.6	9.6	8.7	8.9	8.0	7.2	6.5
Women aged 15-24	14.3	14.3	13.5	13.0	13.7	15.2	13.6	12.6
25-54	9.2	9.9	9.0	8.2	8.5	7.6	6.9	6.3
Population with high school or less	14.0	14.2	13.1	12.2	12.4	12.1	11.2	10.3
Population with post-secondary completion	9.3	9.6	8.9	7.9	8.1	7.4	6.5	5.9
Population with university degree	5.5	5.9	5.4	4.9	5.2	4.8	4.4	4.3
EDUCATION								
<i>Total enrolment in elementary/secondary schools ('000)</i>	5,284.1	5,327.8	5,362.8	5,440.3	5,414.6	5,459.5	5,497.0	--
Secondary school graduation rate (%)	73.2	74.6	71.5	74.8	74.4	72.0	--	--
<i>Post-secondary enrolment ('000)</i>								
Community college, full time	364.7	369.2	380.0	391.3	397.3	398.6	409.8 ⁵	--
Community college, part-time	103.6	98.4	90.8	87.7	87.1	91.6	--	--
University, full time ³	569.5	574.3	575.7	573.2	573.6	573.1	580.4	--
University, part time ³	274.1	258.4	283.3	273.2	256.1	249.7	246.0	--
<i>Community college diplomas granted ('000)</i>	92.5	95.2	97.2	101.0	105.0	105.9 ⁶	--	--
<i>Bachelor's and first professional degrees granted ('000)⁴</i>								
Agriculture and biological sciences	7,485	7,722	8,121	8,399	9,288	9,664	10,079	--
Arts and sciences, field of study unknown	2,941	3,135	3,705	3,684	3,774	3,558	3,537	--
Education	21,454	21,064	21,123	21,277	21,421	20,638	19,374	--
Engineering and applied sciences	8,244	8,309	8,799	9,098	9,415	9,138	9,255	--
Fine and applied arts	3,960	4,049	4,189	4,194	4,142	4,105	4,276	--
Health professions and occupations	7,770	7,778	7,970	8,375	8,633	8,837	8,620	--
Humanities and related	15,937	16,721	16,643	16,127	15,889	15,014	14,721	--
Mathematics and physical sciences	6,429	6,580	6,816	7,142	7,005	7,091	7,239	--
Social sciences and related	46,525	47,844	49,172	49,035	48,422	47,751	47,760	--
<i>Master's degrees granted ('000)</i>	19.4	20.8	21.3	21.4	21.6	21.0	--	--
<i>Doctoral degrees granted ('000)</i>	3.1	3.4 ⁶	3.6	3.7	3.9	3.9	--	--

-- Data not available.

1. 1996 is an eight-month average (January to August). Data after 1996 are not comparable with previous years.

2. Hours usually worked in their main job by workers aged 25 and over.

3. Includes undergraduate and graduate.

4. Includes field of study not reported.

5. Preliminary figure.

6. Estimate only.

EDUCATORS' NOTEBOOK

Suggestions for using Canadian Social Trends in the classroom

Lesson plan for "Being there: The time dual-earner couples spend with their children"

Objectives

- To develop familiarity with the applications of data on time use.
- To understand gender differences in the tasks associated with raising children.

Method

1. Provide each student with a copy of the article "Being there: The time dual-earner couples spend with their children". Have them read the article as a homework or in-class assignment and write brief answers to each of the questions below.
 - a) Fathers with children under 5 spend just as much time as mothers playing with their kids, but only half as much time on personal care. One of the reasons is that, although their wives are also working full-time, fathers are working more hours. What are some other reasons?
 - b) One trend the time use data shows is the growing independence of children as they become older. Is there a way for parents to spend more time with their teenage children without compromising or jeopardizing their children's ability to assume responsibility for themselves?
 - c) How much time did your mother and father spend with you yesterday? Calculate the class average and compare it with the national results.
 - d) The article looked only at families in which both parents worked full time for pay. This was mainly to keep the comparisons between time use of mothers and fathers as straightforward as possible. How might the story differ for couples with another type of working arrangement? How might the story differ for lone-parent families?
 - e) Suggest some of the reasons why the author chose to exclude stepfamilies from the analysis.
2. As a class discuss some of the highlights of the article and summarize some of differences involved in caring for children at different ages.

Using other resources

- Access Statistics Canada's E-STAT site at <http://estat.statcan.ca/ESTAT.HTM>. Click on your province of residence, select 1996 Census, then Census of Population (Provinces, Census Divisions, Municipalities), and select the Profile for "Labour force activities, occupation and industry, place of work, mode of transportation to work, unpaid work". Then look at the distribution of males and females by the number of hours of unpaid childcare they spend for your community.

To keep up-to-date on the latest resources for educators, why not subscribe to Statistics Canada's educator discussion forum? To subscribe, send an email to listproc@statcan.ca Leave the subject line blank and in the body of the message enter subscribe geoghist yourfirstname yourlastname

Share your ideas!

Do you have lessons using *CST* that you would like to share with other educators? Send us your ideas and we will ship you lessons using *CST* received from other educators. For further information, contact Joel Yan, Dissemination Division, Statistics Canada, Ottawa K1A 0T6, 1 800 465-1222; fax (613) 951-4513 or Internet e-mail: yanjoel@statcan.ca.

Educators

You may photocopy "Educators' Notebook" and any item or article in *Canadian Social Trends* for use in your classroom.

THE STATISTICS CANADA EARLY MORNING START-UP SPECIAL

Every morning at 8:30 a.m., Monday to Friday, Internet users can display the day's top socio-economic data simply by selecting **Daily News** on Statistic Canada's Web site at www.statcan.ca. There is no charge for this service.

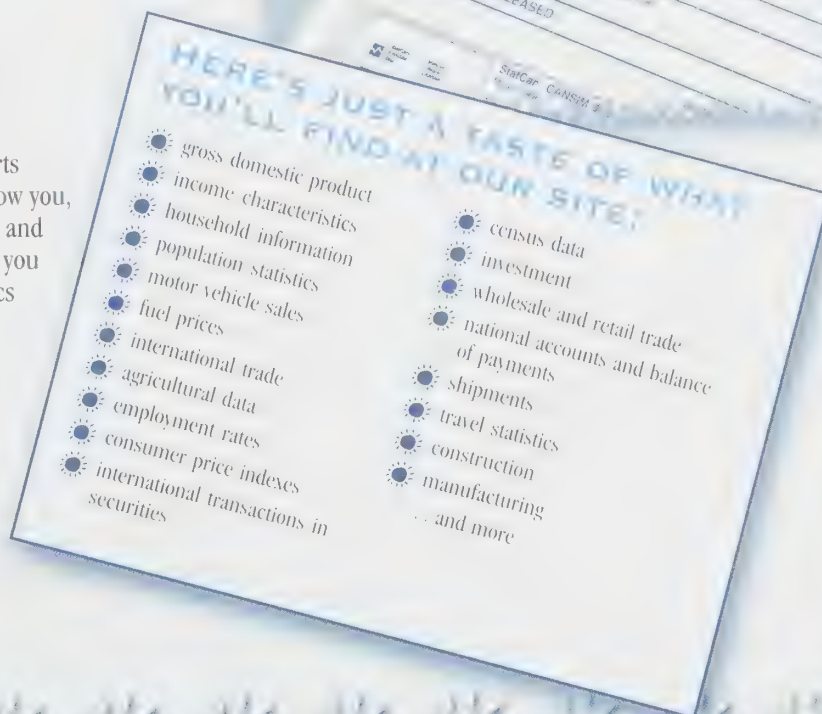
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Canadians in the spotlight



Plugged into the Internet

by Paul Dickenson and Jonathan Ellison

How often do you check the Internet? For many Canadians, the answer is "often." In fact, a recent survey by Statistics Canada found that more than half of Canadians use the Internet at least once a week. This is a significant increase from just a few years ago, when only about a quarter of Canadians used the Internet. The survey also found that the most common uses of the Internet are for checking email, searching for information, and downloading files. Other popular uses include online shopping, banking, and social networking. The survey also found that the most common reasons for using the Internet are to stay informed, to communicate with others, and to have fun. The survey also found that the most common barriers to using the Internet are a lack of access and a lack of knowledge. The survey also found that the most common benefits of using the Internet are staying informed, communicating with others, and having fun.

What you should know about this study

Statistics Canada's most recent survey on the Internet was conducted from May 1998 to October 1998. It was a national survey of 10,000 Canadians aged 15 and over. The survey was conducted by Statistics Canada's National Longitudinal Survey of Children and Youth (NLSCY). The survey was conducted in two waves. The first wave was conducted in May 1998 and the second wave was conducted in October 1998. The survey was conducted in two waves. The first wave was conducted in May 1998 and the second wave was conducted in October 1998. The survey was conducted in two waves. The first wave was conducted in May 1998 and the second wave was conducted in October 1998.



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CANADIAN SOCIAL TRENDS

FEATURES

100 years of
immigration

Heritage
language

Children and sports

Healthy old age

AUTUMN 2000 NO. 58
STATISTICS CANADA

ENTRANCE



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ERRATA

Statistics Canada Catalogue no. 11-008-XPE
Canadian Social Trends, Autumn 2000

See item "Most special education students are male," on page 25. The second sentence should read as follows:

Special needs children most often had learning disabilities (51%), followed by emotional or behavioural problems (23%).

CST

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SOCIAL TRENDS

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Cover Illustrator

Jay Li graduated from the Fine Art Academy of Langara College. During the past 10 years, he travelled around Europe and Australia to study and develop his oil painting. His works have been exhibited in several countries, including Canada. He now resides in Ottawa.

100 years of immigration in Canada

by **Monica Boyd and Michael Vickers**

Record numbers of immigrants came to Canada in the early 1900s. During World War I and the Depression years, numbers declined but by the close of the 20th century, they had again approached those recorded almost 100 years earlier. Despite the superficial similarities at the beginning and the end of a century of immigration, the characteristics of immigrants are quite different. This change reflects many factors: developments and modifications in Canada's immigration policies; the displacement of peoples by wars and political upheaval; the cycle of economic "booms and busts" in Canada and other countries; Canada's membership in the Commonwealth; the growth of communication, transportation, and economic networks linking people around the world.



These forces have operated throughout the 20th century to alter the basic characteristics of Canada's immigrant population in five fundamental ways. First, the numbers of immigrants arriving each year have waxed and waned, meaning that the importance of immigration for Canada's population growth has fluctuated. Second, immigrants increasingly chose to live in Canada's largest cities. Third, the predominance of men among adult immigrants declined as family migration grew and

women came to represent slightly over half of immigrants. Fourth, the marked transformation in the countries in which immigrants had been born enhanced the ethnic diversity of Canadian society. Fifth, alongside Canada's transition from an agricultural to a knowledge-based economy, immigrants were increasingly employed in the manufacturing and service sectors of the economy. This article provides an overview of these important changes over the last 100 years.

The early years: 1900-1915

The 20th century opened with the arrival of nearly 42,000 immigrants in 1900. Numbers quickly escalated to a record high of over 400,000 in 1913. Canada's economy was growing rapidly during these years, and immigrants were drawn by the promise of good job prospects. The building of the trans-continental railway, the settlement of the prairies and expanding industrial production intensified demand for labour. Aggressive recruitment campaigns by the Canadian government to boost immigration and attract workers also increased arrivals: between 1900 and 1914, more than 2.9 million people entered Canada, nearly four times as many as had arrived in the previous 14-year period.

Such volumes of immigrants quickly enlarged Canada's population. Between 1901 and 1911, net migration (the excess of those arriving over those leaving) accounted for 44% of population growth, a level not reached again for another 75 years. The share of the overall population born outside Canada also increased in consequence, so that while immigrants accounted for 13% of the population in 1901, by 1911 they made up 22%.

Most of the foreign-born population lived in Ontario at the start of the century, but many later immigrants headed west. By 1911, 41% of Canada's immigrant population lived in the Prairies, up from 20% recorded in the 1901 Census. This influx had a profound effect on the populations of the western provinces. By 1911, immigrants represented 41% of people living in Manitoba, 50% in Saskatchewan, and 57% of those in Alberta and British Columbia. In contrast, they made up less than 10% of the population in the Atlantic provinces and Quebec, and only 20% in Ontario.

Men greatly outnumbered women among people settling in Canada in the first two decades of the 20th century.¹

This article draws on numerous data sources, with the principal sources being the 1901 to 1996 Censuses of Population and immigration statistics collected by Citizenship and Immigration Canada. It also draws on research by historians and sociologists specializing in immigration issues. A full bibliography is available on the *Canadian Social Trends* website at <http://www.statcan.ca/english/indepth/11-008/sthome.htm>

Immigration: the movement of people into a country for purposes of legal settlement.

Net migration: the difference between immigration and emigration (the flow of people leaving the country permanently).

Immigrants/foreign-born: principally people who are, or have been, landed immigrants in Canada. A landed immigrant is a person who has been granted the right to live in Canada permanently by immigration authorities. Some are recent arrivals; others have resided in Canada for many years.

Non-permanent residents: people from another country who live in Canada and have work, student, or Minister's permits, or claim refugee status. They are not included in the immigrant population after 1986, except in growth projections.

Refugee: according to the 1951 United Nations Convention on refugees, a refugee is a person who "...owing to well founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion, is outside the country of his nationality and is unable, or owing to such fear, is unwilling to avail himself of the protection of that country..." As a signatory to this convention, Canada uses the UN definition of a refugee in assessing who is eligible to enter Canada as a refugee.

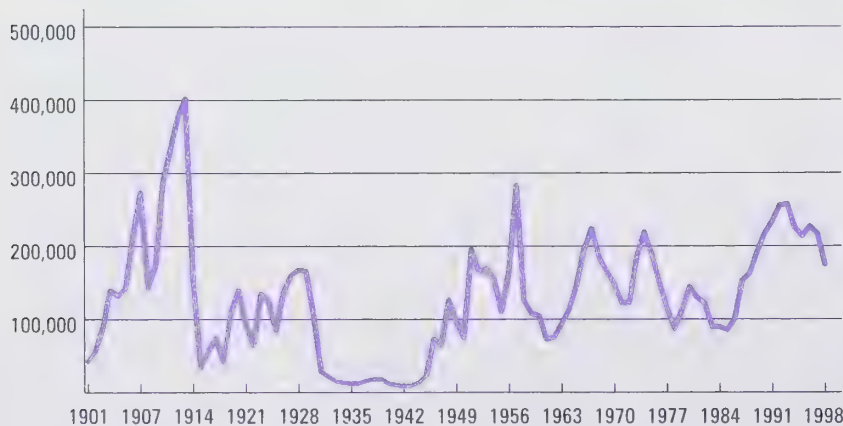
Visible minority population: the *Employment Equity Act* defines visible minorities as "persons, other than Aboriginal peoples, who are non-Caucasian in race or non-white in colour." The visible minority population includes the following groups: Blacks, South Asians, Chinese, Koreans, Japanese, Southeast Asians, Filipinos, Arabs and West Asians, Latin Americans and Pacific Islanders.

The 1911 Census recorded 158 immigrant males for every 100 females, compared with 103 Canadian-born males for 100 females. These unbalanced gender ratios are not uncommon in the history of settlement countries such as Canada, Australia and the United States. They

often reflect labour recruitment efforts targeted at men rather than women, as well as the behaviour of immigrants themselves. In migration

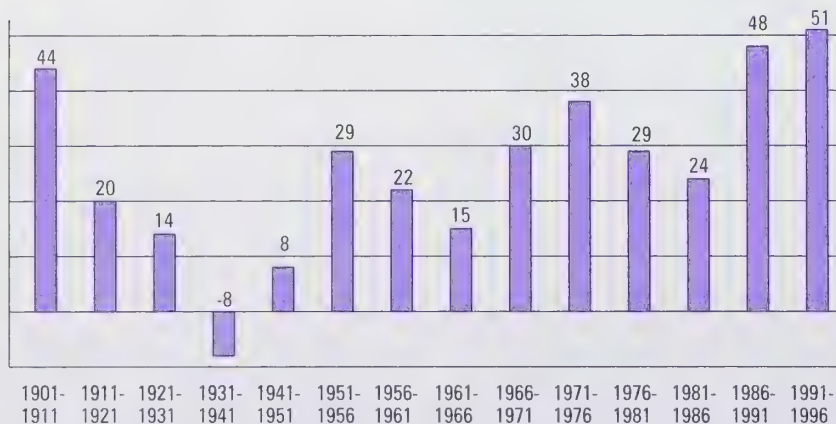
1. Urquhart, M.C. and K.A.H. Buckley. 1965. *Historical Statistics of Canada*.

Number of immigrants



Source: Citizenship and Immigration Canada, Facts and Figures 1998: Immigration Overview.

Immigration as % of population growth



Source: Statistics Canada, Catalogue no. 11-402-XPE.

flows, particularly those motivated by economic reasons, men frequently precede women, either because the move is viewed as temporary and there is no need to uproot family members, or because the man intends to become economically established before being joined by his family. By the time of the 1921 Census, the gender ratio for immigrants had become

less skewed, standing at 125 immigrant males for every 100 immigrant females. It continued to decline throughout the century, reaching 94 per 100 in 1996.

Of course, women also immigrated for economic reasons in the early decades of the century. There was strong demand for female domestic workers, with women in England,

Scotland and Wales being most often targeted for recruitment. Between 1904 and 1914, "domestic" was by far the most common occupation reported by adult women immigrants (almost 30%) arriving from overseas. Men immigrating from overseas during that period were more likely to be unskilled and semi-skilled labourers (36%) or to have a farming occupation (32%).² Historians observe that, contrary to the image of immigrants being farmers and homesteaders, immigrants at the turn of the century were also factory and construction workers. And although many did settle in the western provinces, many also worked building railroads or moved into the large cities, fueling the growth of industrial centres.

Immigration from outside Britain and the U.S. begins to grow in 1910s

At the start of the century, the majority of immigrants to Canada had originated in the United States or the United Kingdom. However, during the 1910s and 1920s, the number born in other European countries began to grow, slowly at first, and then rising to its highest levels in 1961 and 1971.

This change in countries of origin had begun in the closing decades of the 19th century, when many new groups began to arrive in Canada — Doukhobors and Jewish refugees from Russia, Hungarians, Mormons from the U.S., Italians and Ukrainians. This flow continued up until World War I. It generated public debate about who should be admitted to Canada: for some writers and politicians, recruiting labour was the key issue, not the changing origins of immigrants; for others, British and American immigrants were to be preferred to those from southern or eastern European countries.

2. Ibid.

Most immigrants in Canada are adults between the ages of 25 and 64. However, the proportion of immigrants who are aged 65 and older has increased considerably over the decades, from less than 6% in 1921 to 18% in 1996. Two main demographic trends explain this development. The first is the ageing of the longer established immigrant population, many of whom arrived in Canada shortly after the Second World War. The second trend is the growth in the proportion of recent immigrants who are elderly; this has resulted from immigration policies that put greater emphasis on family reunification, thereby allowing Canadians to sponsor elderly relatives as immigrants.

Elderly immigrants from developing countries, who comprise the majority of more recent arrivals, exhibit a greater degree of income polarization than those from developed countries, who have generally lived in Canada much longer. Among immigrants from developing countries, the difference in the share of overall income held by those in the top income quartile and by those in the bottom quartile is much greater than the difference for other immigrants. This may be because many immigrants either have not worked long enough to have made significant contributions to public or private pension plans, or they have not resided in Canada long enough to qualify for basic old age security benefits. The educational attainment of immigrants at arrival also influences their income through its effect on their work history, further contributing to this polarization.

As with Canadian-born seniors, an important issue for elderly immigrants is the decline in their incomes as they age. Income security is particularly important for elderly immigrant women who, like Canadian-born women, live longer than men and so must stretch their retirement benefits further. A 1989 study found that elderly women who had arrived in Canada since the 1970s were more likely to have low incomes than women or men who were either Canadian-born or long-term immigrants. Furthermore, recent immigrants from developing countries were at a greater disadvantage than recent immigrants from developed countries.

However, concerns about the growth in the number of elderly low-income immigrants should be tempered by recent research on migration flows, which indicates that a considerable proportion of older immigrants leave Canada, perhaps to return to their countries of origin. Indeed, by age 75 net migration is negative, that is, more immigrants in this age group leave Canada than arrive.

- For more information, see K.G. Basavarajappa, 1999. *Distribution, Inequality and Concentration of Income Among Older Immigrants in Canada, 1990*, Statistics Canada Catalogue no. 11F0019MPE, #129; M. Boyd, 1989. "Immigration and income security policies in Canada: Implications for elderly immigrant women," *Population Research and Policy Review*, 8; M. Michalowski, 1993. "The elderly and international migration in Canada: 1971-1986," *Genus*, 1L, 1-2.

3. As evidence of this fact, the 1911 Census recorded 2,790 Chinese males for every 100 Chinese females, a figure far in excess of the overall ratio of 158 immigrant males for every 100 immigrant females.
4. It should be noted that although Asians were the most severely targeted by efforts to reduce immigration by non-Europeans, other ethnic groups such as blacks from the United States and the Caribbean also were singled out. Calliste, A. 1993. "Race, gender and Canadian immigration policy," *Journal of Canadian Studies*, 28; Kelley, N. and M. Trebilcock. 1998. *The Making of the mosaic: A history of Canadian immigration policy*; Troper, H. 1972. *Only farmers need apply*.

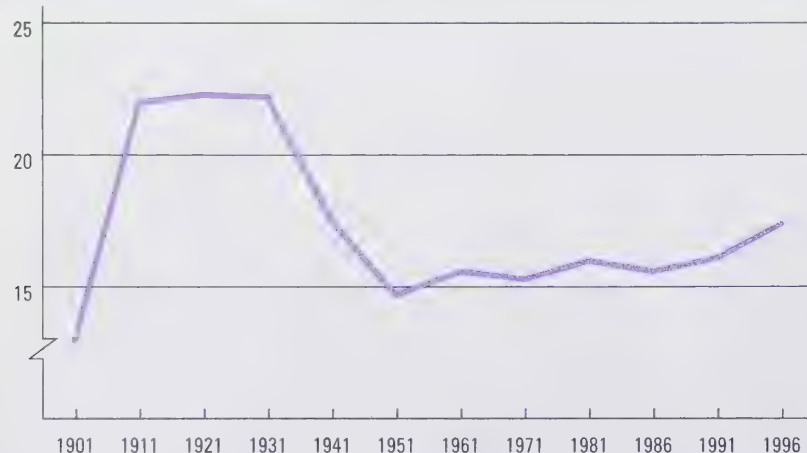
By comparison, immigration from Asia was very low at this time, in dramatic contrast to the situation at the end of the 20th century. Government policies regulating immigration had been rudimentary during the late 1800s, but when legislation was enacted in the early 1900s, it focused primarily on preventing immigration on the grounds of poverty, mental incompetence or on the basis of non-European origins. Even though Chinese immigrant workers had helped to build the transcontinental railroad, in 1885 the first piece of legislation regulating future Chinese immigration required every person of Chinese origin to pay a tax of \$50 upon entering Canada. At the time, this was a very large sum. The "head tax" was increased to \$100 in 1900, and to \$500 in 1903. This fee meant that many Chinese men could not afford to bring brides or wives to Canada.³

The *Act of 1906* prohibited the landing of persons defined as "feeble-minded," having "loathsome or contagious diseases," "paupers," persons "likely to become public charges," criminals and "those of undesirable morality." In 1908, the Act was amended to prohibit the landing of those persons who did not come to Canada directly from their country of origin. This provision effectively excluded the immigration of people from India, who had to book passage on ships sailing from countries outside India because there were no direct sailings between Calcutta and Vancouver. Also in the early 1900s, the Canadian government entered into a series of agreements with Japan that restricted Japanese migration.⁴

The Wars and the Great Depression: 1915-1946

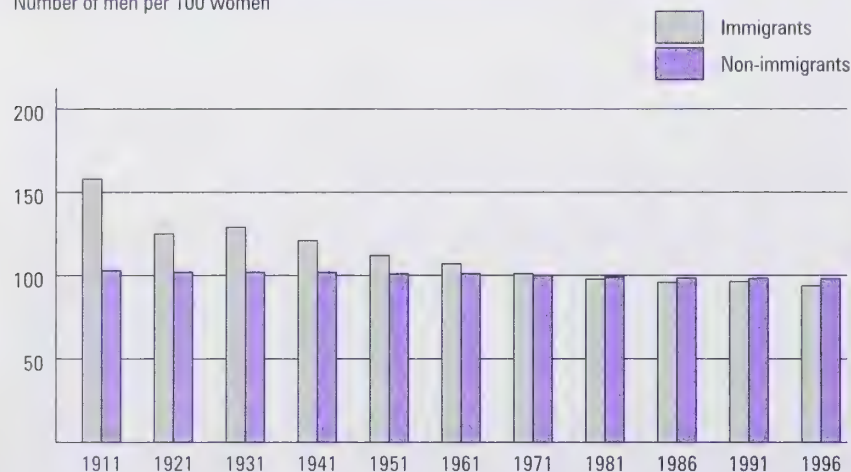
With the outbreak of the First World War, immigration quickly came to a near standstill. From a record high of

% of immigrants in total population



Sources: Statistics Canada, Catalogue no. 99-936 and Product no. 93F0020XCB.

Number of men per 100 women



Sources: Statistics Canada, Catalogue nos. 99-936, 93-155, 93-316 and Product no. 93F0020XCB

over 400,000 in 1913, arrivals dropped sharply to less than 34,000 by 1915. Although numbers rebounded after the war, they never again reached the levels attained before 1914. As a result, net immigration accounted for about 20% of Canada's population growth between 1911 and 1921, less than half the contribution made in the previous decade. However,

the influence of earlier foreign-born arrivals continued, reinforced by the more modest levels of wartime and post-war immigration: at the time of the 1921 Census, immigrants still comprised 22% of the population.

The number of immigrants coming to Canada rose during the 1920s, with well above 150,000 per year entering in the last three years of the decade.

But the Great Depression and the Second World War severely curtailed arrivals during the 1930s and early 1940s — numbers fluctuated between 7,600 and 27,500. Furthermore, there was actually a net migration loss of 92,000 as more people left Canada than entered between 1931 and 1941. The 1930s is the only decade in the 20th century in which this occurred. By the time of the 1941 Census, the percentage of the total population that was foreign-born had fallen to just under 18%.

While more men than women had immigrated to Canada in the first three decades of the century, the situation was reversed when immigration declined in the 1930s and 1940s. During this period, women outnumbered men, accounting for 60% of all adult arrivals between 1931 and 1940, and for 66% between 1941 and 1945.⁵ As a result of these changes, the overall gender ratio of the immigrant population declined slightly.

While lower numbers and the predominance of women among adult immigrants represent shifts in previous immigration patterns, other trends were more stable. The majority of immigrants continued to settle in Ontario, Manitoba, Saskatchewan, Alberta and British Columbia. Increasingly, though, they gravitated to urban areas, foreshadowing the pattern of recent immigration concentration in large cities that became so evident in the last years of the century.

Britain was still the leading source of immigrants, but the arrival of people from other parts of the globe also continued. During the 1920s, the aftershocks of World War I and the Russian Revolution stimulated migration from Germany, Russia, the Ukraine, and eastern European

5. Urquhart and Buckley. 1965.

countries including Poland and Hungary.⁶ During the Depression, the majority of immigrants came from Great Britain, Germany, Austria and the Ukraine. Fewer than 6% were of non-European origin.

Public debate over whom to admit and the development of immigration policy to regulate admissions was far from over. Regulations passed in 1919 provided new grounds for deportation and denied entry to enemy aliens, to those who were enemy aliens during the war, and to Doukhobors, Mennonites and Hutterites.⁷ The 1923 *Chinese Immigration Act* restricted Chinese immigration still further.⁸ Responding to labour market pressures following the Crash of 1929 and the collapse of the Prairie economy, farm workers, domestics and several other occupational groups, as well as relatives of landed immigrants, were struck from the list of admissible classes. Asian immigration was also cut back again.⁹

Then, with the declaration of war on Germany on September 10, 1939, new regulations were passed which prohibited the entry or landing of nationals of countries with which Canada was at war. In the absence of a refugee policy that distinguished between immigrants and refugees, the restrictions imposed in the interwar years raised barriers to those fleeing the chaos and devastation of World War II. Many of those turned away at this time were Jewish refugees attempting to leave Europe.¹⁰ War-related measures also included the forced relocation — often to detention camps — of Japanese-Canadians living within a 100-mile area along the British Columbia coastline. It was argued that they might assist a Japanese invasion.

The boom years: 1946-1970

The war in Europe ended with Germany's surrender on May 6, 1945; in the Pacific, Japan surrendered on

August 14. With the return of peace, both Canada's economy and immigration boomed. Between 1946 and 1950, over 430,000 immigrants arrived, exceeding the total number admitted in the previous 15 years.

The immediate post-war immigration boom included the dependents of Canadian servicemen who had married abroad, refugees, and people seeking economic opportunities in Canada. Beginning in July 1946, and continuing throughout the late 1940s, Orders-in-Council paved the way for the admission of people who had been displaced from their homelands by the war and for whom return was not possible.¹¹ The ruination of the European economy and the unprecedented boom in Canada also favoured high immigration levels.

Numbers continued to grow throughout most of the 1950s, peaking at over 282,000 admissions in 1957. By 1958, immigration levels were beginning to fall, partly because economic conditions were improving in Europe, and partly because, with the Canadian economy slowing, the government introduced administrative policies designed to reduce the rate of immigration. By 1962, however, the economy had recovered and arrivals increased for six successive years. Although admissions never reached the record highs observed in the early part of the century, the total number of immigrants entering Canada in the 1950s and 1960s far exceeded the levels observed in the preceding three decades.

During this time, net migration was higher than it had been in almost 50 years, but it accounted for no more than 30% of total population growth between 1951 and 1971. The population effect of the large number of foreign-born arrivals was muted by the magnitude of natural growth caused by the unprecedented birth rates recorded during the baby boom from 1946 to 1965.

Many of the new immigrants settled in cities, so that by 1961, 81% of foreign-born Canadians lived in an urban area, compared with 68% of Canadian-born. The proportion of the immigrant population living in Ontario continued to grow, accelerating a trend that had begun earlier in the century; in contrast, the proportion living in the Prairie provinces declined.

Such shifts in residential location went hand-in-hand with Canada's transformation from a rural agricultural and resource-based economy in the early years of the century to an urban manufacturing and service-based economy in the later years. Postwar immigrants were important sources of labour for this emerging economy, especially in the early 1950s. Compared to those arriving at the turn of the century, the postwar immigrants were more likely to be professional or skilled workers and they accounted for over half of the growth in these occupations between 1951 and 1961.

Although the largest number of immigrants arriving after World War II were from the United Kingdom, people from other European countries were an increasingly predominant part of the mix. During the late 1940s and 1950s, substantial numbers also

6. Kelley and Trebilcock. 1998; Knowles, V. 1997. *Strangers at our gates: Canadian immigration and immigration policy, 1540-1997*.
7. Kalbach, W. 1970. *The impact of immigration on Canada's population*. Knowles. 1997.
8. Avery, D.H. 2000. "Immigration: Peopling Canada," *The Beaver*; Kalbach, W. 1970.
9. Kalbach. 1970; Statistics Canada. *Immigrants in Canada: Selected highlights*. 1990.
10. Abella, I. and H. Troper. 1982. *None is too many: Canada and the Jews of Europe, 1933-1948*. Kelley and Trebilcock. 1998; Knowles. 1997.
11. Kalbach. 1970; Knowles, 1997.

arrived from Germany, the Netherlands, Italy, Poland and the U.S.S.R. Following the 1956 Soviet invasion of Hungary, Canada also admitted over 37,000 Hungarians, while the Suez Crisis of the same year saw the arrival of almost 109,000 British immigrants.¹² During the 1960s, the trend increased. By the time of the 1971 Census, less than one-third of the foreign-born population had been born in the United Kingdom; half came from other European countries, many from Italy.

New policies help direct postwar immigration trends

Much of the postwar immigration to Canada was stimulated by people displaced by war or political upheaval, as well as by the weakness of the European economies. However, Canada's postwar immigration policies also were an important factor. Because they were statements of who would be admitted and under what conditions, these policies influenced the numbers of arrivals, the types of immigrants, and the country of origin of new arrivals.

Within two years of the war ending, on May 1, 1947, Prime Minister MacKenzie King reaffirmed that immigration was vital for Canada's growth, but he also indicated that the numbers and country of origin of immigrants would be regulated. Five years later, the *Immigration Act* of 1952 consolidated many postwar changes to immigration regulations that had been enacted since the previous Act of 1927. Subsequent regulations that spelled out the possible grounds for limiting admissions included national origin; on this basis, admissible persons were defined to be those with birth or citizenship

12. Kalbach. 1970; Kelley and Trebilcock. 1998; Avery. 2000; Hawkins, F. 1972. *Canada and Immigration: Public Policy and Public Concern*.

Children of immigrants

One of the main reasons why people choose to uproot themselves and immigrate to another country is their desire to provide greater opportunities for their children. Thus, one of the main indicators used to measure the success of an immigrant's adaptation to Canadian society is the degree of success that their children achieve.

Such success is measured primarily in terms of socioeconomic factors, such as increased educational attainment and level of occupational status, compared with the preceding generation. Analysis of data from the 1986 and 1994 General Social Surveys indicate that second generation immigrants (Canadian-born children with at least one foreign-born parent) are generally more successful than their immigrant parents, and equally or more successful than third generation children (both of whose parents are Canadian-born).

These findings are consistent with the "straight line" theory of the process of immigrant integration, which asserts that integration is cumulative: with each passing generation since immigration, the measurable differences between the descendants of immigrants and the Canadian-born are reduced until they are virtually indistinguishable. However, this theory's dominance has been challenged in recent years by analysts who argue that it is based primarily on the experiences of immigrants who were largely white and European, and whose children grew up during a period of unprecedented economic growth. They argue that this theory applies less well to more recent immigrants because it ignores changes in the social and economic structure of Canada in the latter half of the 20th century. Also, it discounts the impact of barriers facing young immigrants, who are predominantly visible minorities, in their ability to integrate successfully.

Possible evidence of such barriers to the integration of the children of immigrants may be seen in an analysis of ethnic origin data for Canada's largest cities from the 1991 Census. This study found that among members of the so-called "1.5 generation" — the foreign-born children of immigrant parents — non-European ethnic origin groups were more likely to live in households that were more crowded and had lower per-capita household incomes than those with European origins.

- For more information, see M. Boyd and E.M. Grieco. 1998. "Triumphant transitions: Socio-economic achievements of the second generation in Canada," *International Migration Review*; M. Boyd, 2000. "Ethnicity and immigrant offspring," *Race and Ethnicity: A Reader*.

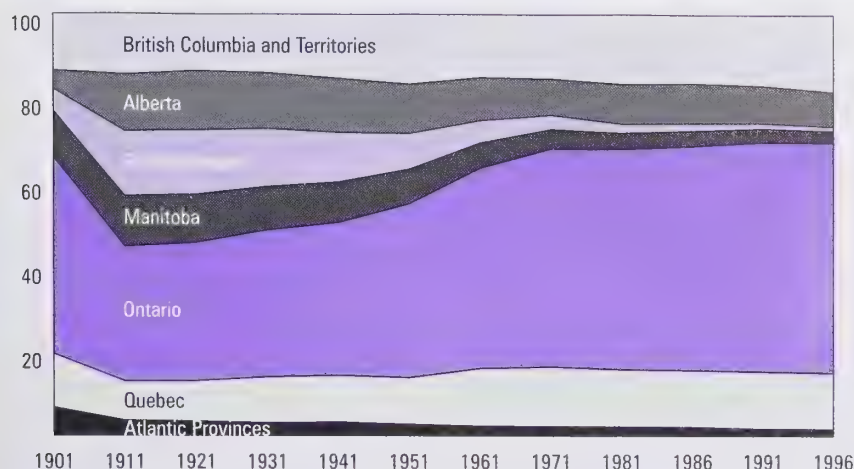
in the United States, the United Kingdom, Australia, New Zealand, the Union of South Africa and selected European countries.

In 1962, however, new regulations effectively removed national origins as a criterion of admission. Further regulations enacted in 1967 confirmed this principle and instead introduced a system that assigned points based on the age, education, language skills and economic characteristics of applicants. These policy

changes made it much easier for persons born outside Europe and the United States to immigrate to Canada.

The 1967 regulations also reaffirmed the right, first extended in the 1950s, of immigrants to sponsor relatives to enter Canada. Family-based immigration had always co-existed alongside economically motivated immigration, but now it was clearly defined. As wives, mothers, aunts and sisters, women participated in these family reunification endeavours:

% of immigrant population



Sources: Statistics Canada, Product no. 93F0020XCB and 1901 Census of Population (Bulletin VIII).

women accounted for almost half of all adult immigrants entering Canada during the 1950s and 1960s. As a result of this gender parity in immigration flows, gender ratios declined over time for the foreign-born population.

Growth and diversity: 1970-1996

In the 1960s, changes in immigration policy were made by altering the regulations that governed implementation of the *Immigration Act* of 1952. But in 1978, a new *Immigration Act* came into effect. This Act upheld the principles of admissions laid out in the regulations of the 1960s: family reunification and economic contributions. For the first time in Canada's history, the new Act also incorporated the principle of admissions based on humanitarian grounds. Previously, refugee admissions had been handled through special procedures and regulations. The Act also required the Minister responsible for the immigration portfolio to set annual immigration targets in consultation with the provinces.

From the 1970s through the 1990s, immigration numbers fluctuated. The

overall impact, however, continued to be a significant contribution to Canada's total population growth that increased as the century drew to a close. During the early and mid-1970s, net migration represented nearly 38% of the total increase in the population; with consistently high levels of arrivals between 1986 and 1996, it accounted for about half of the population growth. These percentages exceeded those recorded in the 1910s and the 1920s. The cumulative effect of net migration from the 1970s onward was a gradual increase in the percentage of foreign-born Canadians. By the time of the 1996 Census, immigrants comprised just over 17% of the population, the largest proportion in more than 50 years.

Having an immigration policy based on principles of family reunification and labour market contribution also recast the composition of the immigrant population. It meant that people from all nations could be admitted if they met the criteria as described in the immigration regulations. The inclusion of humanitarian-based admissions also permitted the entry of refugees from countries outside Europe. As a result,

the immigrants who entered Canada from 1966 onward came from many different countries and possessed more diverse cultural backgrounds than earlier immigrants. Each successive Census recorded declining percentages of the immigrant population that had been born in European countries, the United Kingdom and the United States.

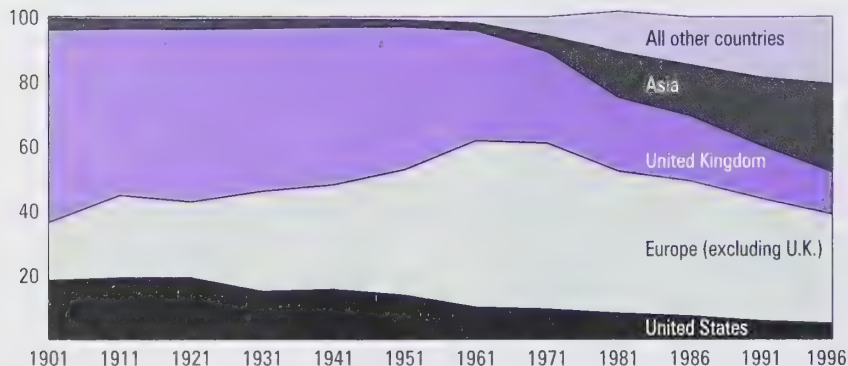
Meanwhile, the proportion of immigrants born in Asian countries and other regions of the world began to rise, slowly at first and then more quickly through the 1980s. By 1996, 27% of the immigrant population in Canada had been born in Asia and another 21% came from places other than the United States, the United Kingdom or Europe. The top five countries of birth for immigrants arriving between 1991 and 1996 were Hong Kong, the People's Republic of China, India, the Philippines and Sri Lanka. Together, these five countries accounted for more than one-third of all immigrants who arrived in those five years.

Immigration the largest contributor to growth of visible minority population

The visible minority population has grown dramatically in the last two decades. In 1996, 11.2 % of Canada's population — 3.2 million people — identified themselves as members of a visible minority group, up from under 5% in 1981. Immigration has been a big contributor to this growth: about seven in 10 visible minorities are immigrants, almost half of whom have arrived since 1981.

Most immigrants live in Canada's big cities, with the largest numbers concentrated in the census metropolitan areas (CMAs) of Toronto, Montréal and Vancouver. This continues the trend established earlier in the century. Proportionally more immigrants than Canadian-born have preferred to settle in urban areas, attracted by economic opportunities

% of immigrant population



Sources: Statistics Canada, Catalogue nos. 99-517 (Vol.VII, Part 1), 92-727 (Vol.I, Part 3), 92-913 and Product no. 93F0020XCB.

and by the presence of other immigrants from the same countries or regions of the world. In 1996, 85% of all immigrants lived in a CMA, compared with just 57% of the Canadian-born population. As a result, the largest CMAs have a higher concentration of immigrants than the national average of just over 17%. In 1996, 42% of Toronto's population, 35% of Vancouver's and 18% of Montréal's were foreign-born.

The attraction to urban centres helps to explain the provincial distribution of immigrants. Since the 1940s, a disproportionate share has lived in Ontario and the percentage has continued to rise over time. By 1996, 55% of all immigrants lived in Ontario, compared with 18% in British Columbia and 13% in Quebec.

Recent immigrants' adjustment to labour force can be difficult

Just as immigrants have contributed to the growth in Canada's population, to its diversity and to its cities, so too have they contributed to its economy. During the last few decades, most employment opportunities have shifted from manufacturing to service

industries, and immigrants are an important source of labour for some of these industries. However, compared with non-immigrants, they are more likely to be employed in the personal services industries, manufacturing and construction. Moreover, the likelihood of being employed in one industry rather than another often differs depending on the immigrant's sex, age at arrival, education, knowledge of English and/or French and length of time in Canada.

Living in a new society generally entails a period of adjustment, particularly when a person must look for work, learn a new language, or deal with an educational system, medical services, government agencies, and laws that may differ significantly from those in his or her country of origin. The difficulty of transition may be seen in the labour market profile of recent immigrants: compared with longer-established immigrants, and with those born in Canada, many may experience higher unemployment rates, hold jobs that do not reflect their level of training and education, and earn lower incomes.

In 1996, immigrants aged 25 to 44 who had arrived in the previous five

years had lower labour force participation rates and lower employment rates than the Canadian-born, even though they were generally better educated and more than 90% could speak at least one official language.¹³ Both male and female immigrants who were recent arrivals were more likely than the Canadian-born to be employed in sales and services occupations and in processing, manufacturing and utilities jobs. However, the proportion of immigrant men in many professional occupations was similar to that of Canadian-born men; in contrast, recent immigrant women were considerably less likely than Canadian-born women to be employed in occupations in business, finance, administration, health, social sciences, education and government services. Recent immigrants also earned less on average than the Canadian-born.¹⁴

In the past, the disparities between recent immigrants and the Canadian-born have often disappeared over time, indicating that initial labour market difficulties reflect the adjustment process. The differences in the 1990s may also result from the diminished employment opportunities available during the recession, also a period of difficulty for the Canadian-born who were new entrants to the job market. Nevertheless, the gaps in employment rates and earnings widened between recent immigrants and the Canadian-born during the 1980s and 1990s, suggesting that newcomers were having an increasingly difficult time in the initial stages of labour market adjustment.

13. Badets, J. and L. Howatson-Leo. 1999. "Recent immigrants in the labour force," *Canadian Social Trends*, Spring 1999.

14. Picot, G. and A. Heisz. 2000. *The performance of the 1990s Canadian labour market*. Statistics Canada Catalogue no. 11F0019MIE00148, #148.

Summary

Few would quarrel with the statement that the 20th century in Canada was an era of enormous change. Every area of life, ranging from the economy to family to law, was altered over the course of a hundred years. Immigration was not immune to these transformative forces. The size and character of immigration flows were influenced by economic booms and busts, by world wars and national immigration policies, and indirectly by expanding communication, transportation and economic links around the world.

The ebb and flow of immigration has presented the most volatile changes over the last 100 years. The century began with the greatest number of immigrant arrivals ever recorded. Thereafter, levels fluctuated, often with dramatic swings from one decade to the next. The lowest levels were recorded in the 1930s during the Depression. By the close of the century, though, the number of immigrants arriving annually were again sufficiently large that net migration accounted for over half of Canada's population growth.

Other changes in immigration are better described as trends, for they followed a course that was cumulative rather than reversible. The high ratio of men to women immigrants dropped steadily throughout the century. There were two main reasons for this decline. First, the number of men immigrating fell during the two wars and the Depression; and second, the number of women immigrants increased in the last half of the century as a result of family reunification after World War II and of family migration, in which women, men and their children immigrated together.

Even in the 1900s and 1910s, the foreign-born were more likely to live in urban areas. After the initial settlement of the Prairies in the early 1900s, the trend toward urban settlement

Non-permanent residents

One category of newcomers to Canada that has grown considerably in recent years is that of non-permanent residents. Although they accounted for less than one per cent of the total national population (or 167,000 persons) at the time of the 1996 Census, the importance of these people, particularly to the labour force, is growing.

Non-permanent residents comprise a diverse group: they include highly skilled managers and technicians, semi-skilled agricultural and domestic workers, refugee claimants and foreign students. They differ from landed immigrants in that they are more likely to be of prime working age (20 to 49 years old) and men significantly outnumber women. They do, however, resemble recent immigrants in that they have congregated primarily in Canada's largest urban areas: nearly three-quarters of them live in the CMAs of Toronto, Vancouver and Montreal. Temporary residents probably congregate in the cities because that is where the work is (for temporary workers) and where the major educational institutions are located (for foreign students). Refugee claimants also tend to settle in larger cities, partly because they represent the principal entry points to the country, and partly because work and support services are more likely to be available.

The largest group of non-permanent residents is that of persons admitted for temporary employment. Since the early 1980s, the number of temporary workers has exceeded the number of working-age immigrants (15 to 64 years), sometimes by a ratio of more than two to one. Although foreign managers and business people have historically resided in Canada to direct the operations of foreign-owned enterprises, the image of temporary workers also includes persons from developing countries working in low-skilled jobs. However, in the wake of the FTA and NAFTA agreements, and with the growing demand for labour from information technology industries, this image of the temporary worker is quickly being replaced by one of highly skilled managerial or technical employees.

Another significant group of non-permanent residents is composed of persons waiting for rulings on their refugee claims. Indeed, one of the largest single increases in the number of non-permanent residents occurred in 1989. Almost 100,000 refugee claimants and out of status foreigners were given the opportunity to apply for permanent residence from inside Canada, under a special Backlog Clearance Program and were given the right to work without having to apply for Employment Authorization.

- For more information, see M. Michalowski, 1996. "Visitors and visa workers: Old wine in new bottles?" *International Migration, Refugee Flows and Human Rights in North America: The Impact of Free Trade and Restructuring*; C. McKie, 1994. "Temporary residents of Canada," *Canadian Social Trends*, Spring 1994.

accelerated. By the 1990s, the vast majority of recent immigrants were residing in census metropolitan areas, mainly those of Toronto, Vancouver and Montréal.

Government policies regulating who would be admitted and under

what conditions also evolved. Much of the effort during the first 50 years of the century focused on restricting immigration from regions of the world other than the U.S., Britain, and Europe. This position changed in the 1960s, when national origin was

removed as a criterion for entry. The policies enacted thereafter entrenched the basic principles guiding admissions, such as family reunification, economic contributions, and humanitarian concerns. With these changes, the source countries of immigrants to Canada substantially altered. By 1996, close to half of the foreign-born in Canada were from countries other than the U.K., the U.S. and Europe.

As a result of these changes, Canada at the close of the 20th century contrasted sharply with Canada 100 years before. Immigrants had increased the population; they had diversified the ethnic and linguistic composition of the country; and they had laboured in both the agrarian economy of old, and in the new industrial and service-based economy of the future.



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Passing on the language: Heritage language diversity in Canada

by **Brian Harrison**

One of the most striking effects of immigration in the last quarter of the 20th century has been the diversity of new languages introduced in Canada. The number of people whose mother tongue was neither French nor English rose from 2.8 million in 1971 to 4.7 million in 1996. This multilingual aspect of the nation is one of its defining social characteristics, as few countries are home to such a broad range of cultural and linguistic groups.

While fluency in at least one of the official languages is generally necessary for socioeconomic success, maintaining one's mother tongue, and passing it on to the next generation, are often perceived as important to immigrants' cultural and personal well-being. To this end, many children participate in heritage language training, which is often held on weekends in schools, community centres and churches across the country. These programs signal the value that new Canadians place on their children speaking a heritage language.

Another indication of the importance of heritage languages is their proliferation in the broadcast and print media. Ethnic radio and television

CST What you should know about this study

This study uses language data from the Censuses of Population. Analysis focuses on the thirteen heritage language groups with a mother tongue population of more than 100,000 in 1996: Chinese, Italian, German, Spanish, Portuguese, Polish, Punjabi, Ukrainian, Arabic, Tagalog, Dutch, Greek and Vietnamese.

Heritage language: a language other than English or French.

Mother tongue: language first learned at home in childhood and still understood at the time of the census.

Home language: language spoken most often at home by the individual at the time of the census.

Knowledge of heritage language: the ability to conduct a conversation in a language other than English or French.

Children: children aged 5 to 14 in two-parent families.

Endogamous marriage: marriage within a group (i.e. both parents have the same heritage language as mother tongue).

Exogamous marriage: marriage outside a group (i.e. parents do not have the same heritage language mother tongue).

stations that broadcast in languages such as Chinese, Italian, Spanish and Polish have sprung up in cities with significant immigrant populations. For example, CFMT International in Ontario has a range of programming in more than fifteen languages and estimates their total audience at more

than 800,000 (excluding English language programming). There is an abundance of weekly and monthly newspapers and newsletters in languages other than English and French, but there are also daily publications for the larger ethnic populations. These include Chinese daily

newspapers that are published in Vancouver and Toronto, and an Italian daily, based in Toronto, which has been published for more than 40 years.

Obviously, there are many people in Canada who read, write, understand or speak a language other than English or French. This article looks at the evolution of heritage languages in the last half of the 20th century, with a focus on their transmission from one generation to the next.

Language changes in the 20th century reflect different origins of immigrants

Except for Aboriginal languages, the heritage languages are an imported phenomenon. Immigrants and their countries of origin changed considerably throughout the last century, contributing to a major transformation in the language composition of the nation. The most prominent heritage languages identified by the 1996 Census differ considerably from those of 1941, when the modern definition of mother tongue was used for the first time.

In 1941, German and Ukrainian were the most frequently reported heritage mother tongue languages in Canada. Many people had immigrated to Canada from Austria, Germany, the Ukraine and Russia in the first decades of the century. German has remained a major language group ever since, largely due to an influx of immigrants during the 1950s, but the number of Canadians with German mother tongue has declined since 1961. Ukrainian, which grew substantially until 1961, has also been declining since that time. Other languages, such as Yiddish, Norwegian, Swedish and Finnish — all major language groups in 1941 — were not replenished by new generations of immigrants from the same language groups, and have faded from the top ten.¹



Changes in the ranking of the top 10 heritage language groups reflect shifts in immigrants' countries of origin

	1941	1961	1981	1991	1996
Top 10 in 1941	(000s with language as mother tongue)				
German	322	564	516	491	471
Ukrainian	313	361	285	201	175
Yiddish	130	82	31	28	24
Polish	129	162	127	200	222
Italian	80	340	531	539	514
Norwegian	60	40	19	14	11
Russian	52	43	31	38	60
Swedish	50	33	17	13	11
Finnish	37	45	33	29	26
Chinese	34	49	224	517	736
Top 10 in 1996					
Chinese	34	49	224	517	736
Italian	80	340	531	539	514
German	322	564	516	491	471
Spanish	1	7	70	188	229
Portuguese	n/a	n/a	165	221	223
Polish	129	162	127	200	222
Punjabi	n/a	n/a	54	147	215
Ukrainian	313	361	285	201	175
Arabic	n/a	n/a	69	119	166
Tagalog	n/a	n/a	8	116	158

Note: Data for 1991 and 1996 include both single and multiple responses. Data not collected for Portuguese and Arabic until 1971; data not collected for Punjabi and Tagalog until 1981.
Source: Statistics Canada, Demography Division.

In contrast, the number of people claiming Chinese as their mother tongue increased sevenfold in the 40 years from 1941 to 1981, and then almost tripled in the next 15 years. By 1996, Chinese was by far the most common heritage language in Canada, reported as mother tongue by almost three-quarters of a million people. Italian also became a major language group in the last half of the 20th century, fuelled by heavy immigration during the two decades between 1951 and 1971. Meanwhile, languages as diverse as Spanish, Punjabi, Arabic and

Tagalog, some of them with so few speakers that data were not even tabulated for them before 1981, were all major heritage language groups by the 1990s.

The process of integration

The process of cultural integration in the 20th century is behind much of the shift in rankings of the early heritage language groups in Canada. When immigrants first arrive here,

1. In 1996, Yiddish was 34th, Norwegian 46th, Swedish 48th and Finnish 31st.

Having a husband with English or French mother tongue is generally more common among women from older heritage language groups



Note: Data for single responses only.

Source: Statistics Canada, 1996 Census of Population.

they often have limited ability in the official languages and they identify strongly with their cultural heritage. Consequently, they often retain their mother tongue as the language they speak most often in the home. However, the children will be exposed to English or French at school, in playgrounds, on television and radio and often through sports and other community activities. In many cases, the children have a greater knowledge of the official languages than their parents. With the passage of time, both the immigrants and their children tend to function more within the dominant cultures, whether English or French. Eventually, the children may marry outside their linguistic and cultural group and when they have children of their own, those children may have little opportunity to speak the heritage language.²

Marriage into the mainstream

Although today's heritage language groups include people who were born in Canada, most have a very high proportion of immigrants. In 1996,

immigrants comprised 71% of the population of the 13 largest language groups. The proportion varies widely between the groups, from a high of 92% for Tagalog to a low of 25% for Ukrainian, but only four language groups — Italian, Greek, German and Ukrainian — were below the overall average of 71%.

It is not surprising to find that marriage to someone with a different mother tongue is generally more common among groups that came to Canada earlier in the century; among those that have a high percentage of newer immigrants, marriage into an official language group is uncommon. For example, in 1996, only 5% of wives whose mother tongue was Chinese had a husband whose mother tongue was English or French; by contrast, the figure was 34% for wives whose mother tongue was Dutch. Exogamous marriage is clearly a rarity in the newer Chinese community, but not in the older established Dutch, German and Ukrainian communities. However, some groups characterized by high immigration in the 1950s, 1960s, and

1970s (such as the Italian and Portuguese) have not experienced the same degree of exogamy.

Passing the language to the next generation easier in endogamous marriages

A common result of marriage outside one's own heritage language group is the adoption of an official language as the children's mother tongue. When only one parent has a heritage language as a mother tongue, the chances of the child having it as well are slim indeed. The percentages range from highs of 20% for children with a Spanish or Punjabi mother tongue parent to lows of 3% for those with an Italian or Ukrainian and only 1% for those with a Dutch mother tongue parent.

As one might expect, though, people in endogamous marriages where both parents have the same mother tongue have a far greater tendency to pass a heritage language on to their children. At least three-quarters of children whose parents' mother tongue was Polish, Chinese, Spanish, Punjabi or Vietnamese had the same mother tongue. On the other hand, some groups have a lower tendency to pass on the language. Such is the case for Dutch, Italian and Tagalog, where fewer than half of these children shared their parents' mother tongue.

The reasons why parents choose to transmit the heritage language are complex. Many new immigrants wish to promote a certain type of bilingualism for their children. They often want their children to identify with their cultural heritage and learn the concomitant language, but at the same time they recognize the economic and

2. This model does not describe the process for all groups in all circumstances. Some language groups can maintain or even increase their numbers because they are relatively isolated or because the people who speak those languages are highly concentrated in a geographic area, as, for example, the German Mennonite community.

social value of being fluent in one or both of the official languages. In addition, some heritage languages may be perceived as being very useful in the labour market of the future.

Another important language transfer issue occurs with respect to the next generation's use of the heritage language as the language they speak most often at home. Far fewer children have the heritage language as their home language than as their mother tongue; in other words, although the heritage language may be the first language they learned, they do not use it as their main language in the home. Even in endogamous marriages, fewer than half of the children use the heritage language as their home language, except in Polish, Chinese, Spanish or Vietnamese heritage language families. When only one of the parents has the heritage language as mother tongue, its use as the home language is very rare — less than one in 10 children. The only exceptions are children of exogamous marriages where one parent's mother tongue is Chinese, Punjabi or Vietnamese.

Although many children may not employ their parent's heritage language as their mother tongue or use it as their home language, they are often able to speak it. In seven of the 13 largest language groups, at least 90% of children of endogamous marriages knew the heritage language well enough to conduct a conversation. Similarly, the children of exogamous marriages had a far greater tendency to know the heritage language. It is apparent that many children learn their parents' mother tongue as a second language.

Inability to speak official languages preserves heritage language communities

Maintaining one's heritage language is important for cultural reasons, but knowledge of one of the official



Children whose parents have the same heritage language are much more likely to learn it as their mother tongue...



... but fewer children use it as their home language



Note: Data for single responses only.
Source: Statistics Canada, 1996 Census of Population.

languages is generally the best means to ensure economic integration and improve the family's prospects. However, the 1996 Census showed that the percentage of people unable to speak either official language was higher than at any other time during the 20th century.³

When large numbers of people in a heritage language group cannot speak

either official language, other members of that community speak to them in their mother tongue. This activity has the effect of increasing the use of that language. For example, one of the reasons that the Chinese language

3. This was largely attributable to heavy immigration in the first half of the nineties.

While immigrants are usually the focus of studies of heritage language groups, it should not be forgotten that many Canadian-born people learn a heritage language. The extent of this phenomenon can be measured using the "language ability index," a ratio of people able to speak a language to people with that language as their mother tongue.¹ All 13 of the largest heritage languages have an ability index of more than 100, meaning that the population able to conduct a conversation in that language is greater than the mother

tongue population. The highest score on the index appears for Spanish (221), followed by German (139), Italian (135) and Arabic (134).

The very high score for Spanish reflects the fact that it is often taught in Canadian schools and is a global language that facilitates communication in the countries to which many Canadians travel. Canada's growing economic and social links with Mexico and Latin America may further enhance the desirability of learning Spanish.

	Mother tongue (MT)	Knowledge (Kn) (000s)	Ability index (Kn/MT)
Spanish	229	506	221
German	471	654	139
Italian	514	694	135
Arabic	167	223	134
Vietnamese	112	148	132
Greek	128	162	126
Ukrainian	175	218	125
Tagalog	158	192	121
Dutch	139	166	119
Portuguese	223	259	116
Polish	222	258	116
Punjabi	215	249	116
Chinese	736	791	108

Note: Data include both single and multiple responses.
Source: Statistics Canada, 1996 Census of Population.

1. Note that some Canadians can understand conversations in their mother tongue but can no longer speak the language, according to the Census.

has such a high rate of use is because one in five people who have Chinese mother tongue speaks neither French nor English.

Interestingly, it is not only new-immigrant heritage language groups in which this situation exists. About one in six Canadians with Portuguese mother tongue and one in 10 of those with Italian mother tongue cannot converse in either official language. The reason may be linked to labour market activity. An earlier study has

shown that a large percentage of immigrants from southern Europe who were unable to speak English or French were women who were not in the labour force, or else were employed in low-paying manual occupations where knowledge of an official language was not essential to do the job.⁴

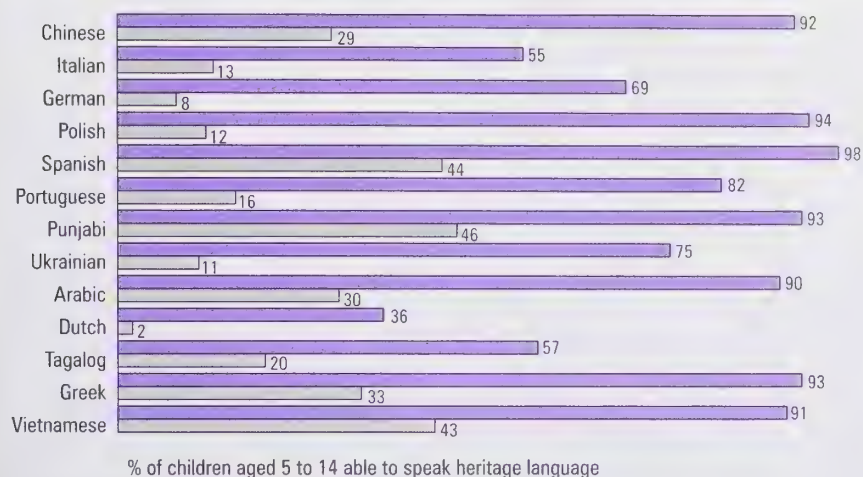
Summary

The late 20th century saw a considerable increase in the number and

diversity of heritage languages spoken in Canada. Immigration from non-European countries was largely responsible for the shift towards a varied range of languages with non-European origins: almost eight in 10 immigrants who arrived in

4. Harrison, B. 1985. *Non-English Speaking Immigrants in Ontario, 1981: Socio-Economic Characteristics*. Toronto: Ontario Ministry of Citizenship and Culture.

Mother tongue of parent



Note: Data for single responses only.

Source: Statistics Canada, 1996 Census of Population.

Canada between 1991 and 1996 were from countries outside Europe or the United States.

The tendency to pass the heritage language to the next generation is affected by a number of factors, including time spent in Canada and the degree of exposure to the language of the majority. It is also highly related to exogamy — the propensity to marry outside the original linguistic group. Children of parents who have the same heritage language mother tongue are far more likely to speak the language than children of exogamous marriages. As immigrant groups spend more time in Canada, there is a tendency to marry more often outside the language group, making it less likely that the children will speak the heritage language.

Whether new immigrants to Canada will follow a pattern similar to that of their predecessors is a matter of debate, and will be the result of a number of factors which have divergent effects on language maintenance. In the past, a greater concentration of ethnic groups in specific neighbourhoods and labour markets tended to increase language maintenance, and this trend is likely to continue. On the other hand, children of immigrants will spend much of their time in front of personal computers that have a considerable amount of information in English and French — an activity which hastens the learning of an official language. However, the Internet may also give them more access to content in their heritage language and this may increase their knowledge of the language of their parents and grandparents.



Brian Harrison began work on the study of heritage languages as a senior analyst with the Demography Division, Statistics Canada. He is now with the Housing, Family and Social Statistics Division.

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A family affair: Children's participation in sports

by Frances Kremarik

"What do you mean, you went and joined the rugby team?" Kids love to do different things, sometimes with and sometimes without their parents' permission. But no matter what their parents may think, kids probably don't join sports teams on a whim. Certainly having fun and feeling good about themselves are probably the primary determinants of a child's decision to play a sport,¹ but the family environment in which they live also counts.

CST What you should know about this study

This article is based on data from the 1998 General Social Survey (GSS) on time use. The survey interviewed almost 11,000 Canadians aged 15 and over in the 10 provinces and provides information about how people spent their time and who was with them during one day's activities. Included in the data collected is information pertaining to the sports activities of household members. Respondents were asked whether they or any other household members had regularly participated in any sport during the previous 12 months; they were also asked whether they or any other household member had participated in amateur sport as a coach, sports official/referee/umpire, administrator or helper. About 2,200 respondents in households with at least one child between the ages of 5 and 14 were identified in order to examine children's sport participation in terms of various parental and household characteristics.

Sport: mainly team or organized sports such as hockey, basketball, baseball, golf, competitive swimming, downhill skiing, soccer, volleyball and tennis. A number of popular recreational physical activities were not defined as sport by the survey, so data were not collected for them; for example, walking, aerobics/dancercise, aquafit, bicycling for recreation or transportation, body building, hiking, jogging, and skate boarding.

Athletically active/athlete: parent or child who regularly participates in organized sports. Regular participation was defined as being active at least once a week during the season or for a certain part of the year. Parents and children classified as "inactive" may in fact be very physically active in activities that were excluded from the survey's definition of sport.

Volunteer administrator/volunteer: parent involved in amateur sports in secondary or support roles as a coach, sports official/referee/umpire, administrator, or a team helper within a structured organization.

Parents provide an environment that can significantly influence a child's desire to participate in organized athletic activities, and their support may be paramount in encouraging participation during a child's formative and adolescent years.² Furthermore, parents who instill a belief in the value of athletic activity may exert a lasting effect on their children.³ This article uses the 1998 General Social Survey (GSS) to look at the household characteristics of children aged 5 to 14 who play sports, with special focus on their parents' involvement in sport.

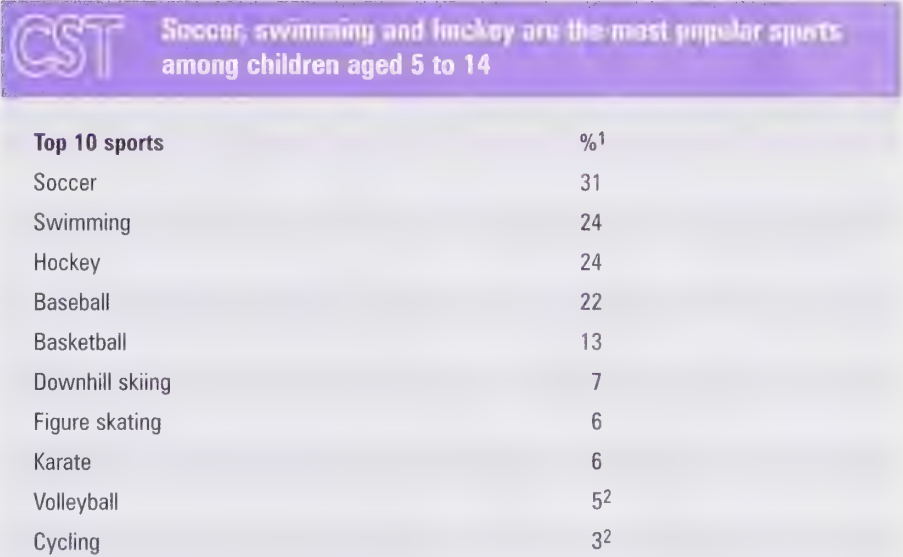
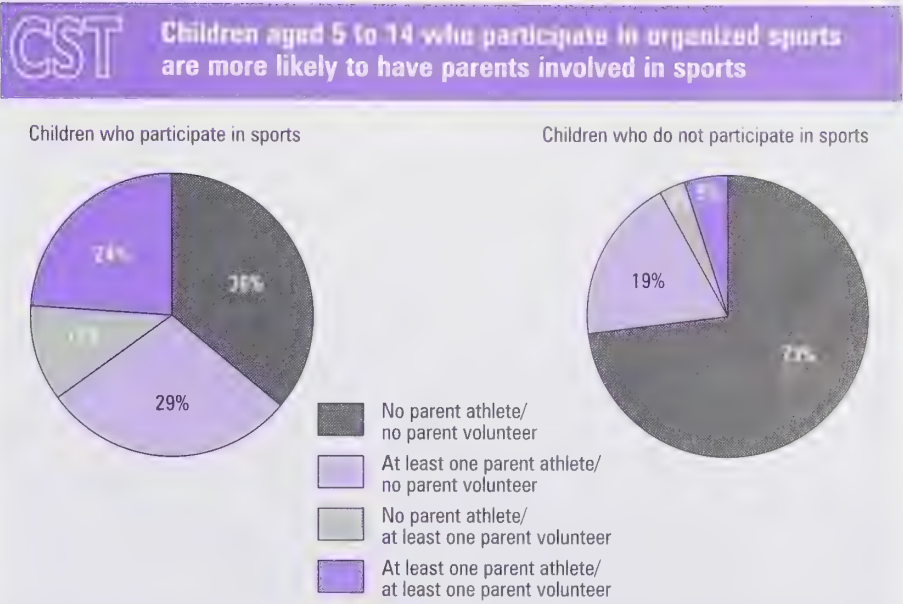
The apple doesn't fall far from the tree

In 1998, about 54% of Canadian children aged 5 to 14 living in two- or one-parent households — almost 2.2 million — regularly took part in some kind of organized sport activity. Almost 48% of these active children participated in more than one sport over the year.

Soccer is the king of sports among children aged 5 to 14, with 31% of athletically active kids participating regularly. Swimming and hockey are tied for second and third place, at 24% each. At the bottom of the top 10 list were figure skating and karate (6% each), volleyball (5%) and cycling (3%).

Active kids generally have supportive families: almost two-thirds of them (1.4 million) had at least one parent who was also involved in organized sport. Most often these parents were athletes themselves; they were also volunteer administrators (for example, coach, manager, fund-raiser); and both athletes and volunteers. Not surprisingly, a far smaller proportion of inactive kids (27%) had parents who were involved in sport.⁴

One might expect family structure would affect children's participation, since it is probably easier to support a child's involvement in organized sports — for instance, taking the child



1. Martens, R. 1996. "Turning Kids on to Physical Activity for a Lifetime," *Quest*, 48, 3: 303-310.
2. Martin, S., A. Jackson, P. Richardson, and K. Weiller. 1999. "Coaching Preferences of Adolescent Youths and Their Parents," *Journal of Applied Sports Psychology*, 11: 247-262.
3. Welk, G.J. 1999. "The Youth Physical Activity Model: A Conceptual Bridge Between Theory and Practice," *Quest*, 51: 5-23.
4. It should be noted that "inactive" individuals (both parents and children) might in fact be very involved in recreational activities like running, hiking, biking for recreation, and aerobics/fitness classes. These types of non-competitive activities were not classified as sports by the GSS.

to and from practices, attending games or competitions — if two adults are able to share the responsibilities. But participation rates were similar whether the children lived in two-parent (54%) or lone-parent (53%) families.

Nor do participation rates seem to differ depending on which parent is involved in sports. In two-parent households where only the father is involved, either as an athlete or in an administrative role, 66% of children participated in organized sports; in those where the mother was the only involved parent, the rate was just over 64%. In lone-mother families, over 81% of children whose mother was athletically active or a volunteer administrator took part in organized sports activities.⁵

The rate of children's sports participation does differ, though, depending upon the type of involvement their parents have. For example, 64% of children with at least one athletically active parent were also involved in sport. If at least one parent helped as a volunteer administrator, 83% of kids participated in sports; when parents were both athletes and volunteers, the proportion was even higher, at 86%. In contrast, in households where neither parent was involved in organized sports, only 36% of children were active.

Children's much higher rate of participation if their parents are volunteers is easily explained, since many sports organizations rely upon volunteers to function successfully. In children's sports, most volunteer labour is provided by parents whose assistance is implicitly mandated by their children's membership on the team. Thus parents take on duties as coaches, team managers, umpires, fund-raisers and so on. On the other hand, a parent currently involved as a volunteer may be a former athlete who maintains his or her ties to their old sport in an administrative capacity.



Children's participation in sports differs depending on their parents' involvement in sports

Parental involvement	% of children aged 5 to 14 active in sports
All families	54
Neither athlete/neither volunteer	36
At least one athlete/neither volunteer	64
Neither athlete/at least one volunteer	83
At least one athlete/at least one volunteer	86
Two-parent families	54
Neither athlete/neither volunteer	35
At least one athlete/neither volunteer	64
Neither athlete/at least one volunteer	83
At least one athlete/at least one volunteer	85
Lone-parent families	53
Not athlete/not volunteer	41
Athlete/volunteer or both	76

Source: Statistics Canada, General Social Survey, 1998.

Often, children and their parents are athletically active in the same sport, even though the principle of self-determination states that children prefer sports they can choose themselves. In families where both the parents and the children were athletically active, over 30% of children had at least one sport in common with a parent.

Family income also a key determinant of sports activity

Participating in organized sports may require the purchase of equipment, the payment of user fees, contribution to travel costs and so on. Spending can range from tens to thousands of dollars. Although research in the United States has suggested that cost and lack of equipment are not deterrents to a child's participation,⁶ a recent Canadian study has strongly suggested that income is a barrier for children from households in lower income groups.⁷

Data from the GSS support the Canadian findings. Only 49% of children in households with incomes

under \$40,000 were active in sports, compared with 73% of those in households with incomes over \$80,000. And while about one in five children from lower- and higher-income households played hockey, those from homes with incomes under \$40,000 were more likely to be involved in relatively inexpensive sports (baseball and basketball) than children from households with incomes over \$80,000. As well, high-income kids were more likely to be downhill skiers and swimmers than children from lower-income families.

5. Children's participation rates cannot be calculated for male lone-parent families because the sample size is too small to produce reliable estimates.

6. Welk, G.J. 1999. "The Youth Physical Activity Model: A Conceptual Bridge Between Theory and Practice," *Quest*, 51: 5-23.

7. Offord, D., E. Lipman and E. Duku. 1998. *Sports, The Arts and Community Programs: Rates and Correlates of Participation*. Ottawa: Human Resources Development Canada. 19.

Child's age		Odds ratio
5		1.0
6		1.2*
7		2.0
8		2.1
9		2.8
10		2.4
11		3.7
12		3.2
13		2.5
14		3.4
Income/activity¹		
Less than \$40,000	Both parents inactive	1.0
	Mother active/father inactive	1.5*
	Father active/mother inactive	1.2*
	Both parents active	4.8
\$40,000 to \$79,999	Both parents inactive	1.2*
	Mother active/father inactive	3.6
	Father active/mother inactive	3.9
	Both parents active	13.3
\$80,000 and over	Both parents inactive	1.5
	Mother active/father inactive	3.9
	Father active/mother inactive	5.4
	Both parents active	12.2

* Not statistically significant difference from benchmark group.

1. Involvement as athlete, volunteer or both.

Note: This table presents the odds that a child participates regularly in sports, relative to the odds that a benchmark group participates (odds ratio) when all other variables in the analysis are held constant. The benchmark group is shown in boldface for each characteristic.

Source: Statistics Canada, General Social Survey, 1998.

What has the greatest influence on children's sports participation?

A logistic regression was used to estimate the likelihood that a child would participate in organized sport, when controlling for the effects of selected characteristics. The model was developed for two-parent households only, and parents were defined as being active, whether their involvement was

as an athlete, a volunteer administrator or both. (A model for lone parents was not developed due to data constraints.)

Results show that, compared with a child aged five, the odds of a child participating in sport increases steadily from age seven onward. This may be due to more organized athletic activities being available to children as they grow older.

More importantly though, the results show that households with active parents and higher incomes are key predictors of a child's participation in organized sport. Children with two active parents and a household income of \$80,000 or more have odds over 12 times higher than those of children with inactive parents in a household whose income is under \$40,000. Nevertheless, even in lower-income households, children with two active parents have 4.8 times higher odds of sports participation than children with inactive parents. When parents are not involved in sports, however, household income has little effect upon the odds of children's sport participation.

Why playing sports is good for kids

Physical activity — whether playing team soccer or going for a bike ride with the family — provides both immediate and long-term health benefits to children. Most importantly in the short term, a physically active lifestyle helps combat childhood obesity, a condition that has been steadily increasing since 1980.⁸ Not only are children who become obese likely to develop into obese adults, but the earlier the onset of the condition, the greater the likelihood of retaining it into adulthood.⁹ Furthermore, the earlier onset of obesity in children has resulted in previously "adult" conditions, such as Type II diabetes, now being observed in children.

Participating in organized sports appears to have benefits additional to physical health. Research in other countries indicates that young people

8. Flegal, K.M. 1999. "The obesity epidemic in children and adults: current evidence and research issues," *Medicine & Science in Sports & Exercise*, supplement, 31, 11: s510-s511.

9. N.A. 2000. "Med Watch," *Globe & Mail*, January 25, 2000: R8.



Eating out costs one-third of food budget

Canadians spent a higher proportion of their food dollar on meals outside the home during the 1990s than in the 1980s. Of every \$100 spent on food in 1998, an average of \$34.60 went to meals outside the home, up from \$32.70 in 1989. People who live alone, those with higher incomes, and people without children are the most likely to eat out. There are significant differences among provinces, with residents of Atlantic Canada spending relatively less on eating out and people in British Columbia, Quebec and Alberta spending more. Meanwhile, food service providers and food stores have been adjusting to changing consumer preferences. As a result, today there are more fast-food, delivery, take-out and drive-through food service outlets, as well as pre-prepared meals.

Services indicators, Fourth quarter 1999

*Catalogue no. 63-016-XPB
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Cases in adult criminal court taking longer to resolve

In 1998/99, adult criminal courts handled almost 400,000 cases, down over 11% from 1994/95. But about 30% of cases took six

or more appearances to resolve, compared with only 23% five years earlier. Also, 47% of cases involved multiple charges, up from 44% in 1994/95. Multiple-charge cases take longer to process — an average of 5.2 court appearances as opposed to 4.3 for single-charge cases in 1998/99. Over one-third (35%) of convictions resulted in a jail term. While this represents only a slight increase in convictions involving imprisonment, the median length of prison sentences has risen substantially from 30 days in 1994/95 to 45 days in 1998/99. (N.B. Based on data from courts in seven provinces and the two territories, excluding British Columbia, Manitoba and New Brunswick.)

Juristat: Adult criminal court statistics, 1998/99

*Catalogue no. 85-002-XPE
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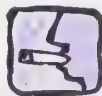


Most special education students are male

In 1994/95, about one in 10 Canadian children in elementary school received special education because of a problem that affected their ability to do school work. Special needs children most often had learning disabilities (51%), followed by emotional (23%) and behavioural problems (22%). Boys made up almost two-thirds of elementary special needs students. The majority (59%) of children who received special needs education were taught in a regular classroom, with only part of their instruction being given in a

special education classroom or resource room. Teachers generally rated special education students near the bottom of the class in all areas of academic achievement. However, most special education students looked forward to attending school. Children from families with low socio-economic status or from lone-parent families were more likely to receive special education.

*Education Quarterly Review, Vol. 6, no. 2 (Winter 1999)
Catalogue no. 81-003-XPB*



Overall smoking trend is down, but not for teens

There has been a significant drop in Canadian smoking rates — about 10 percentage points — over the period 1985 to 1999. The majority of this decline occurred after 1994. Men aged 15 and older recorded a larger overall drop in smoking rates than women, although their current smoking prevalence is actually higher (27% compared with 23% for women in 1999). Declines were most noticeable among Canadians aged 45 to 64, as smoking rates dropped from about 36% to 21%; much of this change occurred between 1996 and 1999. In contrast to older adults, youths aged 15 to 19 recorded an increase of 6.5 percentage points between 1991 and 1994. Rates have remained stable in this age group since then.

Report on smoking prevalence in Canada, 1985 to 1999

Product no. 82F0077XIE



Travel patterns of families and adults alone not very different

Travelling by car was the most common mode of transportation for adults travelling in Canada, whether with or without children. However, adults-only trips were an average of 120 kilometres longer than trips taken by families. Families were more active, though; they visited theme parks, zoos, national parks and historic sites, and took part in outdoor and aquatic activities, swimming and hiking, far more often than adults only. When they travelled abroad, Canadian families chose the United States most often (85% of trips); so did adults travelling alone, but they were more likely to choose an overseas destination (25% versus 15%). For adults only, taking a trip overseas was twice as expensive as visiting the U.S. — \$1,300 per person per trip versus \$600 — but it was three times more expensive for families — \$900 compared with only \$300 for each family member.

Travel-log, Vol. 19, no. 2 (Spring 2000)

*Catalogue no. 87-003-XPB
(Internet 87-003-XIE)*

Dependence-free life expectancy in Canada

by **Laurent Martel and Alain Bélanger**

In 1901, a woman born in Canada could expect to live, on average, until the age of 50, and a man until the age of 47. Only 44% of women and 38% of men reached the age of 65. The minority who did reach 65 could hope to live about another 10 years.

This article is adapted from "An Analysis of the Change in Dependence-Free Life Expectancy in Canada between 1986 and 1996," *Report on the Demographic Situation in Canada, 1998-1999*, Statistics Canada Catalogue no. 91-209-XPE.

Nearly a century later, the situation has changed greatly. As a result of public health measures and new medical knowledge and interventions (particularly vaccination), infectious and parasitic diseases common throughout Canada in the early 1900s are now virtually unknown. Today, a newborn male can expect to live an average of 75.7 years and a female 81.4 years.¹ More than 80% of men and almost 90% of women will live to celebrate their 65th birthday. With people routinely reaching retirement age, much of the population now experiences a new phase in the life cycle: a "third age", a period lived in good health, free of work obligations that can be devoted to the fulfillment of personal goals. Only in the "fourth age" does an individual see health deteriorate to the point where activities are limited.

But while the increase in expected longevity is encouraging at the individual level, it does raise concerns at

the societal level. This is especially true in the context of below-replacement fertility,² when the proportion of older people in the general population is rising. Health authorities are already warning of considerable increases in the costs of health care and related services as seniors of advanced years begin to experience deteriorating health. Yet the aging of the Canadian population will not really begin to accelerate until 2011, when the vanguard of the baby boom generation reaches age 65.

This article uses the measure of dependence-free life expectancy to ask whether the additional years of life gained over the last decade are being lived in good health. It identifies four basic states of health — dependence-free, moderate dependence, severe and institutionalized — and estimates the number of years in which Canadian seniors can expect to live in each health state.

Living longer may not necessarily mean living in good health

Although there was a steady increase in life expectancy throughout the 20th century, it might not necessarily have been accompanied by a similar increase in healthy life expectancy. Because it is an indicator of mortality, it has become common to link improvements in life expectancy with a healthier population. However, this implicit positive association between mortality and morbidity — that is, that people live longer because they are healthier — is by no means certain. According to the theory of "the

1. Estimates for 1996. *Health Reports*, Statistics Canada Catalogue no. 82-003-XPB; 11, 3, Winter 1999.

2. Replacement level fertility (the number of children needed to sustain current population levels) is 2.1 children per woman. The Canadian fertility rate in 1998 was less than 1.6 children per woman.

Data in this article come from the 1986 and 1991 Health and Activity Limitations Surveys (HALS) and the 1996-97 National Population Health Survey (NPHS). HALS was designed to contribute to a national database on disability and collected data on the nature and severity of disabilities, barriers faced in everyday life, use of and need for assistive devices, and out-of-pocket expenses related to disability. The 1996-97 NPHS was designed to collect information about the health of Canadians and asked in-depth questions covering topics such as health status, activity limitations, presence of chronic health conditions, contact with health professionals, use of medication, and mental and psychological well-being.

Life expectancy: remaining number of years of life that can be expected based on current mortality conditions.

Dependence-free life expectancy: number of years of dependence-free life that can be expected based on current mortality and morbidity conditions. Obtained by multiplying the prevalence of each health state in the population with the number of person years derived from life tables.¹

Health status: an individual's level of health in relation to their level of dependence on others for assistance. On this basis four health states were defined:

Dependence-free/good health: includes those individuals who stated that they do not need assistance, with the possible exception of heavy housework.

Moderate dependence: includes those individuals who need assistance with meal preparation, shopping or everyday housework.

Severe dependence: includes those persons who need a high level of assistance, including needing assistance to move about or for their personal care.

Institutionalized dependence: due to the very high level of assistance required by these individuals, they reside in an institution where they can receive specialized care. (The number of individuals living in these health establishments was estimated from the censuses for the corresponding years.)

Mortality: the effect of death on the population.

Morbidity: the effect of illness, sickness or disease on the population.

1. Using the method described by D.F. Sullivan. 1971. "A Single Index of Mortality and Morbidity", *HSMHA, Health Reports*, 86: 347-354.

An opposing view is presented by the "limited life span" theory, which argues that there is a finite limit to life expectancy and it will never be possible to extend it much beyond an average of 85 years. If further improvement in life expectancy is indeed limited, then future progress would come mainly through reductions in illness or disease. Supporters of this theory believe that the quality of life during the "third age" can be achieved by adopting a healthy lifestyle — for example, not smoking and participating in regular physical activity — that could delay or even prevent the onset of chronic diseases. In other words, although people will not live much longer in the future than they do now, gains may still be possible in the area of morbidity.⁴

Dependence-free life expectancy is improving

Mortality rates for infants, youths and active adults in Canada today are reaching levels that cannot easily be compressed further. Thus, it is most likely that future improvements in life expectancy will come from progress made in old age. In fact, considerable gains have been made in just one decade.

3. Verbrugge, L.M. 1984. "Longer Life but Worsening Health? Trends in Health and Mortality of Middle-Aged and Older Persons," *Milbank Memorial Fund Quarterly / Health and Society*, 62, 3: 475-519; Crimmins, E. M. 1990. "Are Americans Healthier as Well as Longer-Lived?" *Journal of Insurance Medicine*, 22, 2: 89-92; Olshansky, S.J., M.A. Rudberg, B.A. Carnes, C.K. Cassel and J.A. Brody. 1991. "Trading Off Longer Life for Worsening Health," *Journal of Aging and Health*, 3, 2: 194-216.

4. Fries, J. F. 1983. "Aging, Natural Death, and the Compression of Morbidity," *New England Journal of Medicine*, 303, 3: 130-135; 1983. "The Compression of Morbidity," *Milbank Memorial Fund Quarterly / Health and Society*, 61, 3: 397-419; 1989. "The Compression of Morbidity: Near or Far?" *Milbank Quarterly*, 67, 2: 208-232.

expansion of morbidity,"³ the degenerative or chronic diseases of old age will remain common while medical and technological advancements will make it possible for older individuals to survive longer in a state

of incapacity or dependence. As a result, this hypothesis suggests that greater longevity may become increasingly synonymous with a longer period of declining physical or mental health.

In 1986, a 65-year-old man could expect to live, on average, for an additional 15 years; for 80% of this time (12 years), he could expect to enjoy dependence-free health. A 65-year-old woman was likely to live another 19.4 years, and 66% (12.7 years) of her remaining life would be in good health.

By 1996, life expectancy for a man at 65 had improved by 1.1 years, most of which (0.7 years) was dependence-free. Overall life expectancy for a 65-year-old woman did not improve much (0.6 years), presumably because her life expectancy was already high, but she had gained an additional 0.8 years of good health during the decade.

The changes in dependence-free life expectancy observed between 1986 and 1996 suggest that, in the future, it will be increasingly difficult to push back women's mortality, but that gains may still be possible in the area of better health. Lower life expectancy for men indicates that further improvement in both mortality and morbidity has yet to be seen. Moreover, these results also suggest that "old age" is a quite different experience for men than for women.

Women are less healthy in old age

It is possible to calculate, for each age group, the proportion of remaining years of life that will be lived in a state of dependence-free good health and moderate, severe or institutionalized dependence.⁵ For example, men aged 65 to 69 in 1996 could expect to live an additional 16 years. The majority of these years (12.7) would be dependence-free; but men would also spend 1.5 years in moderate dependence needing help with tasks like meal preparation and shopping; 1.1 years in severe dependence relying on assistance with tasks like moving about the house or personal care; and 0.8 years in an institution. Women in the same age group have another 20 years' life expectancy; many of their remaining years will be dependence-free (13.5),



Dependence-free life expectancy at age 65 has improved for women and men

	Men			Women		
	Life expectancy	Dependence-free life expectancy	Expected years of dependence	Life expectancy	Dependence-free life expectancy	Expected years of dependence
Years remaining						
Age 65						
1986	15.0	12.0	3.0	19.4	12.7	6.7
1991	15.8	12.2	3.6	20.0	12.8	7.2
1996	16.1	12.7	3.4	20.0	13.5	6.5
Percent of years remaining						
Age 65						
1986	100.0	80.0	20.0	100.0	65.8	34.2
1991	100.0	77.3	22.7	100.0	64.3	35.7
1996	100.0	78.8	21.2	100.0	67.6	32.4

Source: Statistics Canada, Demography Division, Research and Analysis Section.



Maintaining autonomy in an aging society

Helping people to maintain their autonomy into old age is probably the most effective strategy to adopt when faced with the dual challenges of an aging population and funding constraints on health services. However, health policies centred on this principle must be based on a clear understanding of the determinants of dependence. Statistics Canada's longitudinal National Population Health Survey, which allows researchers to establish causal links between people's health status and the extent of their dependence, is contributing to the improvement of knowledge in this area. New studies indicate, for example, that some chronic illnesses (like diabetes), low income, lower educational attainment, and being overweight or obese increases the likelihood of becoming dependent in later life.¹ Other factors, like smoking or having a stroke, present a double jeopardy: they can increase a person's risk of losing autonomy and then reduce the chance that he or she will recover independence later.

It seems almost certain that healthy habits nurtured over a lifetime — not only in the retirement years but also throughout the life cycle — contribute to the maintenance of autonomy as a person ages. In this sense, seniors in the future will most probably remain independent longer than seniors do today, having benefited earlier from an understanding of how to safeguard their health.

1. Martel, L., A. Bélanger and J.-M. Berthelot. 2000. "Risk factors associated with transitions between functional states: Some results from the NPHS longitudinal panel." Paper presented at the 12th REVES Conference, Healthy Life Expectancy — Linking Policy and Science. Los Angeles, March 20-22, 2000.

5. Although people with moderate and severe dependence are still living in private households, they rely on others to perform or assist in performing tasks that must be done each day. This reliance can generate significant costs — whether in time or money — for the individual's informal support networks (family, friends and neighbours) and/or for the health care system (for example, home care, volunteer organizations and so on).

but they will spend 2.7, 1.6 and 2.1 years, respectively, in states of increasing dependence.

Of most immediate concern for policy-makers and the health care system, however, is the estimated dependence-free life expectancy of seniors aged 85 and over. This age group is the fastest-growing component of the senior population (their numbers have almost tripled since 1971, to 380,000 in 1998)⁶ and the most likely to suffer from ill health. The estimates of life expectancy by health status show that men over 84 will spend just over 40% of their remaining 3.7 years dependence-free. This is far from being the case for women the same age, who can expect to spend only a quarter (1.1 out of 4.3 years) of their remaining years dependence-free, while the greatest part of the remaining years (1.5) will be spent in a health care institution.

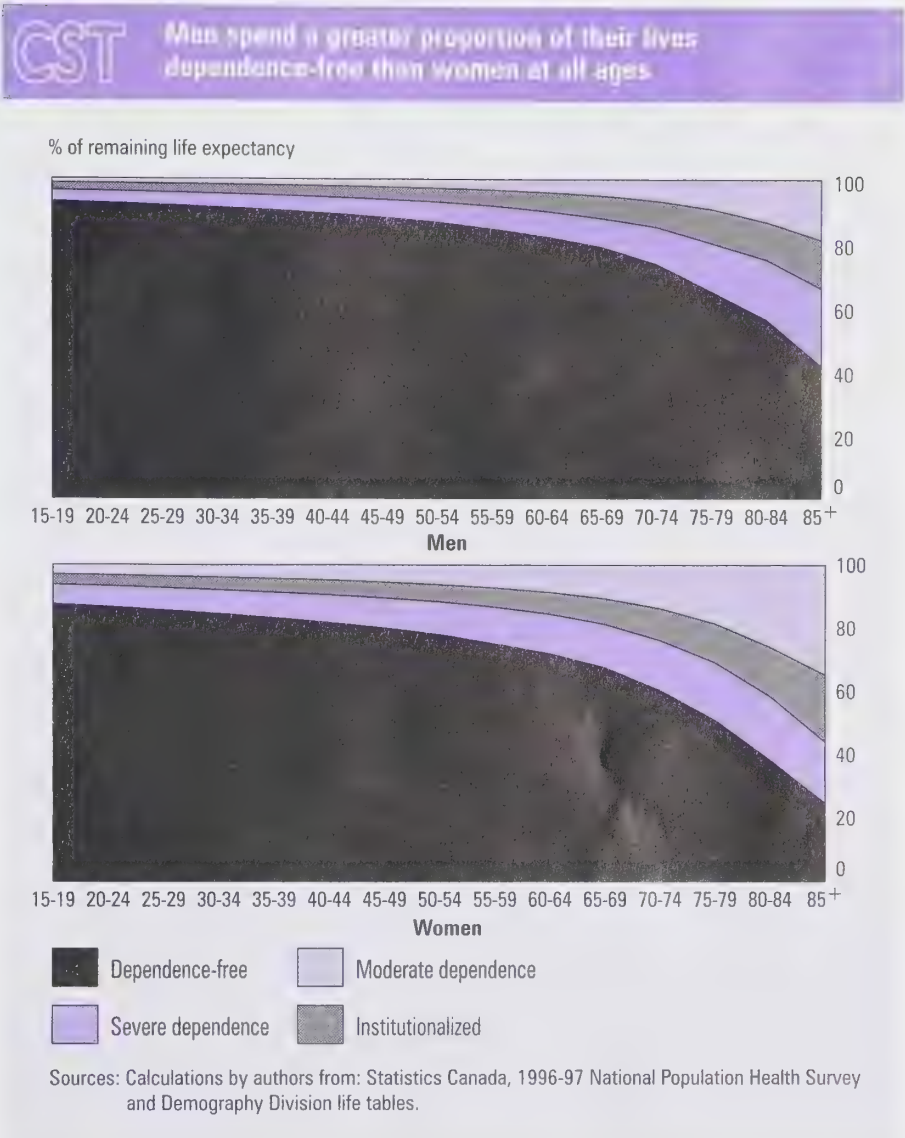
This paradox is explained by the nature of the diseases that afflict men; generally they are more likely to be victims of acute illnesses that kill fairly quickly, such as heart disease. Women are more likely to suffer chronic diseases like arthritis, rheumatism and hypertension, which are debilitating but not fatal, thus prolonging the period of their life passed in ill health.⁷

Towards a compression of morbidity in Canada?

The trend toward increases in life expectancy has slowed in recent years, since 1981 for women and 1991 for

6. Statistics Canada projections estimate that Canadians aged 85 and over will number 1.6 million by 2041, or 4% of the total population. Lindsay, C. 1999. "Seniors: A diverse group aging well," *Canadian Social Trends*, Spring 1999.

7. Verbrugge, L. 1989. "Gender, aging and health," In *Aging and health: Perspectives on gender, race, ethnicity, and class* (K.S. Mackides. ed.). Newbury Park: Sage. 23-78.



men. Does this phenomenon mean, as some researchers think, that we are approaching the limit of human life expectancy? Although there is some evidence to support such an assumption, research currently underway on the human genome and the mechanisms of cellular aging appear to hold the greatest promise for increasing life expectancy. But living longer is not necessarily desirable if it is not accompanied by an equivalent increase in years lived in good health.

Indicators of healthy life expectancies, such as the measure of dependence-free life expectancy used in this study, make it possible to evaluate the quality of life of a population

in terms of health. They are an essential complement to the discussion of life expectancies and should prove to be extremely useful tools for decision-makers who seek to establish effective health policies. All indications are that not only have Canadians added several years to their lives, but also life to their years.

Laurent Martel is an analyst and **Alain Bélanger** is Research Coordinator with Demography Division, Statistics Canada.

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	1992	1993	1994	1995	1996	1997	1998	1999
ECONOMY								
<i>Annual % change</i>								
Gross Domestic Product	2.2	3.8	5.9	5.2	3.3	4.8	2.5	6.0
Wages, salaries	2.3	1.8	2.6	3.4	2.4	5.8	4.0	4.5
Expenditures on goods and services ¹	1.8	1.8	3.1	2.1	2.5	4.2	2.8	3.2
Consumer Price Index	1.5	1.8	0.2	2.2	1.6	1.6	0.9	1.7
Saving rate (%)	10.7	8.0	7.0	7.1	4.5	2.0	2.2	1.1
Prime lending rate	7.48	5.94	6.88	8.65	6.06	4.96	6.60	6.44
5-year mortgage rate	9.51	8.78	9.53	9.16	7.93	7.07	6.93	7.56
Exchange rate (with U.S. dollar)	1.209	1.290	1.366	1.372	1.364	1.385	1.483	1.486
ENVIRONMENT								
Number of days with airborne particles exceeding objectives (Canada average)	6.6	6.1	--	--	--	--	--	--
Number of hours ground-level ozone exceeded objectives (Canada average)	4.9	3.1	6.5	--	--	--	--	--
Number of days per year air quality rated as poor								
CMA of Toronto	9	12	14	14	--	--	--	--
CMA of Montréal	6	3	3	5	--	--	--	--
CMA of Vancouver	--	--	1	--	--	--	--	--
Billions of public transit passengers	1.41	1.38	1.35	1.39	1.37	1.4	1.43	--
% of class 1 farmland used by urban areas	--	--	--	--	11.2	--	--	--
JUSTICE								
<i>Rate per 100,000 population²</i>								
Total Criminal Code offences	10,036	9,531	9,114	8,993	8,914	8,448	8,102	--
Property offences	5,902	5,571	5,250	5,283	5,264	4,864	4,541	--
Violent offences	1,084	1,081	1,046	1,007	1,000	990	975	--
Other Criminal Code offences	3,051	2,879	2,817	2,702	2,650	2,594	2,586	--
Average days to process case through courts								
Adults	--	--	135	141	148	157	150	--
Youths ³	101	112	111	118	117	105	--	--
Average length of sentence per case								
Adults (days in prison)	--	--	125	132	137	142	137	--
Youths (days of open and secure custody)	92	92	88	82	79	74	--	--
CIVIC SOCIETY								
Voter turnout in federal elections	--	69.6	--	--	--	67.0	--	--
% of eligible foreign-born holding citizenship	--	--	--	--	83	--	--	--
Attendance at heritage institutions ('000) ⁴	108,836	108,174	111,221	--	112,965	--	114,064	--
Government expenditures on culture and heritage (millions \$) ⁵	4,759	--	4,608	--	4,378	4,253	--	--
% attending religious services at least several times a year	56	52	54	--	50	--	54	--
% of taxpayers making charitable donations	29	28	27	51	27	26	26	--
Average amount of charitable donations (current dollars)	586	610	634	647	728	808	860	--

-- Data not available.

1. Data in 1992 dollars.

2. Revised rates based on updated population estimates.

3. Excludes Alberta.

4. Includes only not-for-profit institutions that have an educational and/or interpretive components: nature parks, historic sites, museums, archives and other institutions.

5. Excludes intergovernmental transfers. Data in 1987 dollars.

Lesson plan for "A family affair: Children's participation in sports"

Objectives

- To determine the importance that participating in organized sport has for students.
- To examine the influence of family and community environment on athletic activities.

Method

1. Read the article "A family affair: Children's participation in sports" and briefly summarize the findings. Ask how many students in the class had parents who were involved in sports when the students were younger. Was the parent involved as an athlete or as a volunteer? In what "direction" did this involvement flow; that is, did the student start to take part in sports because one of their parents was an active athlete, or did their parents become involved because the student had already joined a team?
2. Many factors other than parents and household income can influence the sports children play. A suburb with lots of land presents much different sports options than a downtown neighbourhood. List other factors that may affect sports participation.
3. Although children aged 9 to 12 are quite active in organized sport, participation rates drop markedly for people in their teens. Discuss some of the reasons for this.
4. Ask the class to research several different types of tests for physical fitness. Ask them to develop a test of their own, preferably using simple methods.
5. Find out which students play sports and list the most popular ones. Estimate the time commitment for participating (include practices, travelling, the length of the season and so on). What other activities are sacrificed (e.g. part-time job, involvement in school clubs) to play sports?
6. High school sport seems to be much more competitive in the United States than in Canada. Discuss why you think the situation is different in each country.

Using other resources

- For more information on physical activity and healthy lifestyles, visit the Health Canada website at www.hc-sc.gc.ca.
- For lesson plans for Health and Physical Education courses, check out the Statistics Canada web-site, <http://www.statcan.ca> under Education Resources. Select Lesson plans.

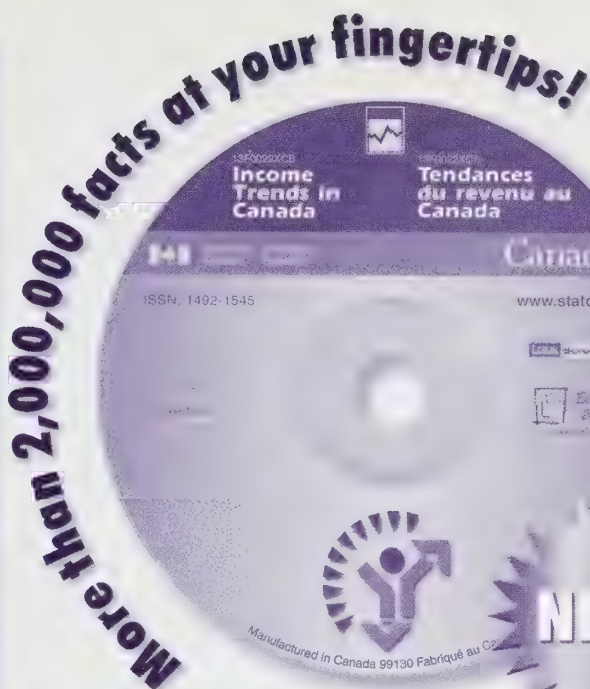
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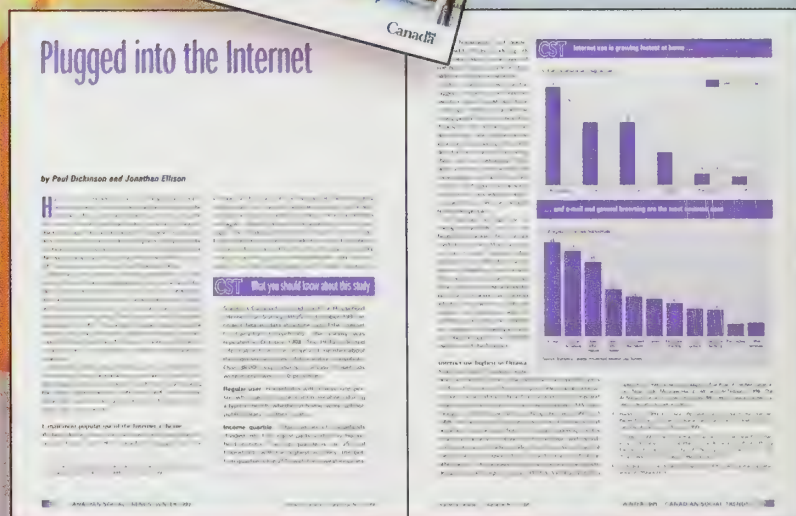
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100 years of...



With this last issue of the year 2000, *Canadian Social Trends* concludes its review of the dramatic changes that have occurred in Canadian society over the last 100 years. In previous articles, we have visited the family, the labour force and immigration; in this final series of articles, we sketch the improvements in what might loosely be called "standard of living" — income and expenditures, urbanization, health and education.

Once again, these articles draw on many sources of data. We have

relied heavily on Statistics Canada's archive of historical data, of course: it is extensive, and easily accessible to everyone. However, changes in concepts, collection methods and population coverage inevitably occur over a long period of time. While the editors charged with compiling volumes of historical statistics make heroic efforts to keep the data as comparable as possible, in practice the many social, legal and technological developments that occur over the decades cannot be ignored. Therefore, the statistics presented

in these articles are based on concepts and coverage that have occasionally undergone some modification. Although such changes do not significantly distort the general trend, the data should be interpreted with some caution.

A complete bibliography of sources is available on the *Canadian Social Trends* website at <http://www.statcan.ca/english/indepth/11-008/sthome.htm>

Note regarding "100 years of income and expenditure"

Income is normally presented in real, or constant, dollars, in order to take account of the cumulative effects of inflation. But until the 1980s, when high annual inflation rates make conversion to constant dollars more useful, dollar values in "100 years of income and expenditure" are presented in current dollars, unless stated otherwise. This is because current dollars may better convey to modern readers the psychological dimension of economic conditions like the desperation of the Depression and the euphoria of the boom that followed the Second World War. So next time your grandfather tells you that when he was a boy in 1935, an ice cream cone cost 5 cents and not \$2.00, you can remind him that personal disposable income was only \$304 then, too.

— Ed.

Education

by Warren Clark

The 20th century has seen dramatic changes to the educational system in Canada. At the beginning of the century, Canada was still a largely agricultural nation that did not put much of a premium on education. Only slightly more than half of school-aged youngsters attended school on a daily basis and more than one in 10 people could not read or write at all. In the intervening years, government support of education has made elementary and secondary education universally accessible across Canada, and helped to develop a sophisticated network of universities and colleges. In addition, a wide array of private sector business and trade schools has grown up alongside these public sector institutions. By the end of the century, people with university degrees outnumbered those with less than a Grade 9 education.

The benefits of education

Over the course of the last 100 years, the overall educational attainment of Canada's population has increased and the benefits of education to individuals and to society have become clear. An educated workforce, capable of using knowledge to generate innovation and wealth, is vital to a strong and prosperous economy. Education greatly influences the types of jobs Canadians obtain, and increases their likelihood of being employed and their standard of living. For example, the 1996 Census shows that graduates with a bachelor's degree were more likely to have been employed full-time full-year in 1995 (51%) than high school graduates (35%), and that they earned more (a median income of \$43,600 versus \$29,700).

In the same way that income increases with educational attainment, so too does the extent to which people contribute to their communities.

People with higher education are more likely to volunteer, have greater involvement in their children's education, be involved in sports, and donate to charities. Furthermore, the educational achievement of parents, and all that it entails, is generally passed on to their children.

Public education in Canada

The foundations of the public education system in Canada were laid at Confederation when it was agreed that education would be a provincial responsibility. As such, educational organization and practices have varied (and continue to vary) from province to province or territory. Shortly after Confederation, compulsory school attendance laws obliged parents to send their children to school. At the same time, public tax-supported schools were built, and the principle of free schooling for all children during their formative years was established.

Despite the availability of free education, though, many children frequently did not go to school, particularly boys. Long absences were common due to the demands of planting or harvest time, the need to help support the family, illness, or bad weather. In 1901, for example, about 1.1 million children were enrolled in elementary or secondary schools, but an average of only about six out of 10 students attended on a daily basis.

In response to these kinds of attendance problems, further efforts were made to lengthen the period of compulsory schooling and to enforce laws requiring attendance. By 1921, all provinces except Quebec had laws setting out the minimum amount of time that children must attend school full-time. For example, in British Columbia all children between the ages of 7 and 14 were obliged to attend school full-time during the school year.

Although education was free for young children and educators

recognized that children benefited most from attending school at an early age, many children did not start school until age 7 or 8. In 1921, only 52% of 6-year-olds and 83% of 7-year-olds attended school. In 1930, one in three Grade One students were aged 8 or older; however, regular daily attendance had risen to 86% of enrolment. More regular attendance patterns, combined with the raising of the age of mandatory attendance, extended the time children spent in the classroom by two years compared with 1919.

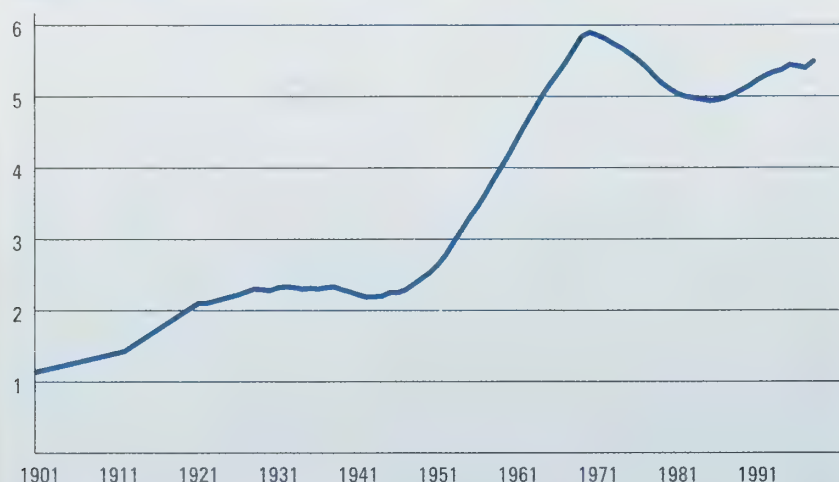
The Great Depression of the early 1930s greatly affected families and schools. Rural Canada, particularly the Prairies, was especially hard hit. Provincial grants and local property assessments in support of publicly-funded schools dropped by 15% between 1930 and 1935.¹ Rural schools were often supported by only a few dozen families. Also, because rural families generally had lower incomes and more children than urban families, rural families found it more difficult to keep their children in school and support the operation of schools. Both before and after the Depression, rural children were less likely than urban children to stay in school beyond the compulsory age of attendance.

Enrolment explodes with the baby boom

Beginning in the late 1940s, the postwar baby boom produced an explosion in elementary/secondary enrolment. It peaked at 5.9 million in 1970. This dramatic growth brought with it large class sizes, shortages of classroom space and a scarcity of teachers. School board officials, who had grown accustomed to only small changes in enrolment during the

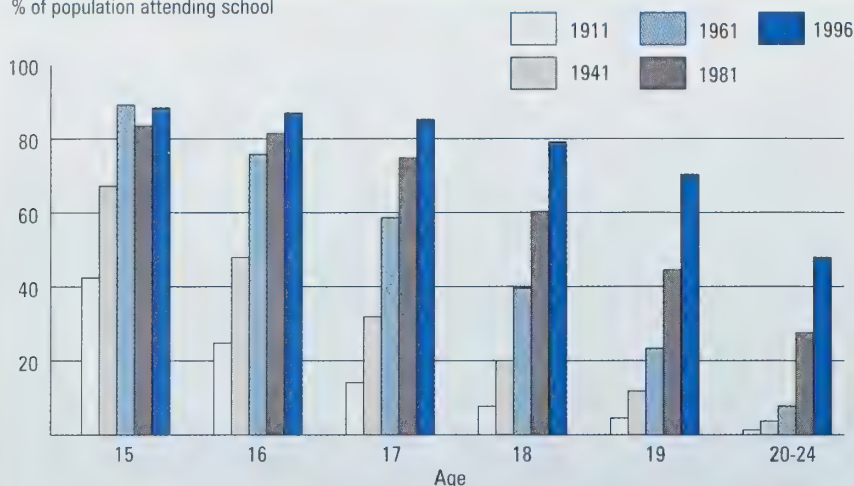
1. Urquhart, M. C. and K. A. H. Buckley. 1965. *Historical Statistics of Canada*. 599.

Millions of students



Sources: Statistics Canada, Catalogue nos. 81-568, 81-229 and 81-003 and special tabulations.

% of population attending school



Sources: Statistics Canada, Catalogue nos. 98-1931, vol.1 and 98-1941, vol.1, and special tabulations.

1930s and 1940s, could not build schools fast enough during the 1950s and 1960s. Between 1950 and 1970, enrolment increased by 134% while expenditures on elementary-secondary education increased by over 700% after accounting for inflation.

After the 1970 peak, enrolment dropped, reaching 4.9 million in 1985

as baby boomers moved on to colleges and universities and the much smaller baby bust cohort (born between 1967 and 1979) moved into elementary and secondary schools. Although there were fewer students, teenagers stayed in school longer — high school graduation rates that were 53% in 1971 rose to 70% in 1986 and then to

75% in the mid-1990s.² By 1995, enrolment had rebounded to 5.4 million.

Although Canada's 1998 secondary graduation rate (72%) was comparable to that of the United States (74%), it was still well below those of other industrialized countries such as France (87%) and Japan (96%).³ In the late 1980s and early 1990s, attention was focused on the number of early school leavers. Almost one in five (18%) 20-year-olds in 1991 had left school before graduation; by 1995, there were still 15% who had not completed high school. According to the 1996 Census, about 290,000 young adults aged 20 to 24 (15%) were not attending school and had not graduated from high school.

In the early 1950s, more than half of the population aged 15 and over had less than a Grade 9 education. Leaving school early did little harm since primary-sector and blue-collar manufacturing jobs were easy to find. Today, such jobs are much less common and, increasingly, high school (and often postsecondary) graduation may be a minimum requirement for employment. Therefore, young people who drop out in the 1990s may lack many skills needed to enter the labour market of the 21st century.

Postsecondary education

Some of the greatest advances in education in Canada in the 20th century have come in the area of postsecondary education. In 1901 there were only about 6,800 students in attendance full-time at 18 degree-granting institutions in Canada. The first women enrolled at Canadian

2. High school graduates as a percentage of the 18-year-old population outside Quebec and 17-year-old population in Quebec.

3. Organisation for Economic Co-operation and Development. 2000. *Education at a Glance: OECD Indicators 2000 Edition*. 147.

The changing nature of literacy — Grade 9 is no longer enough

In the early 20th century, illiteracy was fairly widespread. In 1901, 14% of the population aged 5 and over could not read or write at all; in 1921, it was 9% (or 5% of the population aged 10 and older). This was partly due to Canada's immigration policy of the late 19th and early 20th centuries, which saw many immigrants arrive who spoke neither French nor English. As a result, whereas only 4% of the Canadian- or British-born population aged 10 and older were illiterate, the rate for the foreign-born was 12%.

As the educational system expanded in the post-World War II era to handle the baby boom, experts became increasingly concerned that many Canadians were inadequately educated to cope with the complex nature of industrial society. Educational attainment of less than Grade 5 was considered a cut-off for basic adult literacy, and less than Grade 9 for functional illiteracy in industrialized economies such as Canada's.¹ In 1971, 6% of the adult population not attending school full-time had education of less than Grade 5 and another 24% had a Grade 5 to Grade 8 education.

In 1994, the first International Adult Literacy Survey (IALS) measured literacy levels of the Canadian adult population aged 16 to 65. The survey used detailed exercises to test skills at understanding and using printed information in daily activities at home, at work and in the community. The survey categorized literacy into five broad levels, with Level 1 being the lowest and Level 5 being the highest. Almost three out of five Canadians (over 10.5 million) had sufficient prose, document and numeric literacy skills to meet most everyday requirements in dealing with printed documents (Level 3 or higher). One in four Canadians had Level 2 skills (over 4.6 million); although these people generally believed they had good or excellent skills, their test scores were weak. For about one in six Canadians (over 3.1 million), dealing with printed materials presented a severe difficulty (Level 1).

Inadequate literacy is a serious personal and social problem. Literacy skills are crucial to the well-being of individuals and are linked to economic security. In 1994, working-age adults with weak Level 1 skills were less likely (59%) to have been employed during the year than those who had strong Level 4/5 skills (89%);² those who were employed worked fewer weeks per year than working adults with Level 4/5 skills. Adults with Level 1 literacy were also more likely to live in low-income households and had average personal income about two-thirds that of the average of adults with Level 4/5 skills.

- For more information, see Shalla, V. and G. Schellenberg. 1998. *The Value of Words: Literacy and Economic Security in Canada*. Statistics Canada Catalogue no. 89F0100XIE; Organisation for Economic Co-operation and Development. 1995. *Literacy, economy and society: Results of the first International Adult Literacy Survey*. Statistics Canada Catalogue no. 89-545-XPE.

1. Council of Ministers of Education, Canada. 1988. *Adult illiteracy in Canada: Identifying and addressing the problem*. 5.

2. Levels 4 and 5 are combined to ensure data reliability.

university preparation course within 15 months of leaving the military. In 1947-48, over 32,000 ex-service personnel received government assistance for university training.

This era also marked a new approach to government recognition of the social and economic importance of postsecondary education. In 1951, the Massey Royal Commission called

universities in the 1880s, and by the turn of the century about 12% of university students were women, most of whom were enrolled in arts and science programs. By 1920, full-time enrolment had nearly quadrupled to 23,200 and 17% were women. At this time, Canadian universities were mainly funded by fees and gifts from private citizens.⁴

Government grants to universities declined during the Depression, and staff salaries were cut. With no jobs available to tempt young people to look for jobs, those able to afford a university education took advantage of the situation. Enrolment rose slowly but steadily. Between 1920 and 1940, enrolment increased by 57% and by 1940, 23% of university students were women. While the student population in arts and science nearly doubled, the professional fields increased only modestly. The largest enrolment increases occurred in female-dominated fields such as education, household science, nursing, social work, library science and physical and occupational therapy.⁵

During the Second World War, there was a great deal of postsecondary educational activity, including technical training of more than 700,000 military personnel. In August 1942, Parliament passed the *Vocational Training Co-ordination Act*, which authorized training related to the Canadian war effort, including tradespersons in the armed forces and workers in industry. The *Act* also provided for training of personnel discharged from the armed forces, and for training that might be desirable in the postwar period. After the war, the *Veterans Rehabilitation Act* offered payment of tuition and other fees for each veteran starting a university or

4. Harris, R. S. 1976. *A History of Higher Education in Canada 1663-1960*. 210.

5. *Ibid.*, 351.

for a significant expansion of public responsibility for postsecondary education. The Commission recommended that the federal government make direct and unrestricted grants to universities. Parliament approved the recommendation for grants for the 1951-52 academic year.⁶

With these new financial underpinnings, and with growing grants from provincial governments, universities and colleges were able to accept growing enrolment throughout the 1950s, 1960s and 1970s. Demand for postsecondary education was high as the demand for skilled labour increased and as the baby boom children reached late adolescence. In the mid-1970s, strong enrolment growth was interrupted at universities, but it began to grow again at the end of the decade. In the 1980s, full-time university enrolment grew by 35%, peaking in 1994, and then levelling off. This flattening can be traced to several factors: the stabilization of the size of the young adult population; the weak economic recovery; mixed messages from the labour market — most new jobs required postsecondary education but the recession of the early 1990s had demonstrated that graduates were not immune from unemployment; stability of family size and incomes; and a drop in personal savings rates.⁷

Women outnumber men at universities by the 1990s

In 1960, about one quarter of students enrolled at university were women, not much different from the early 1930s. But this began to change in the early 1960s, when female-dominated

6. Sheffield, Edward, Duncan D. Campbell, Jeffrey Homes, B. B. Kymlicka, James H. Whitelaw. 1978. *Systems of higher education: Canada*. 8-9.

7. Association of Universities and Colleges of Canada. 1999. *Trends: The Canadian University in Profile*. 51.

Student assistance

Responding to concerns about the accessibility of postsecondary education, in 1964 the federal government introduced the Canada Student Loan Program to provide financial assistance to postsecondary students who qualified for assistance according to assessed need. The program guaranteed loans made to qualified students and paid the interest on the loans while the student attended school and for six months following graduation. Provincial governments also instituted their own financial assistance programs.

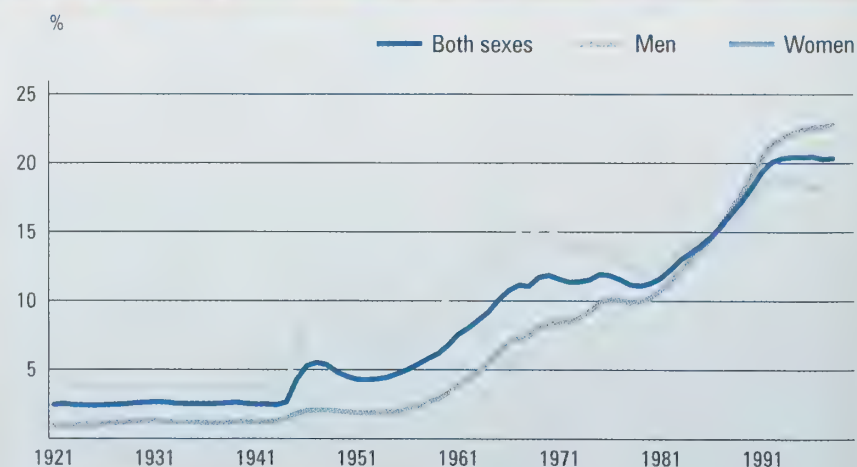
In the 1990s, there was a major shift away from grant support of postsecondary students. This move, combined with increased loan limits, meant that students received larger loans and less grant assistance. At the same time, personal savings rates had dropped and government transfers to universities during the mid-90s declined. Family income, in real terms, remained about the same while tuition fees more than doubled. In 1999-2000, tuition fees in an average undergraduate arts program stood at \$3,379 compared with \$1,595 in 1988-89 (1999 dollars). As a result of these developments, the 1990s saw a dramatic increase in the average debt loads of students who borrowed.

In February 1998, the Government of Canada announced a number of measures to address concerns about mounting student debt, including income tax credits for interest paid on student loans, grants for students with dependents, extension of education tax credits to part-time students, lengthening the interest relief period to up to 30 months following graduation, and the possibility of reducing the debt for student borrowers in the greatest financial hardship. However, legislation was also introduced to prevent borrowers from avoiding repayment of student loans through bankruptcy for a period of 10 years after the end of their studies.

- For more information, see Clark, W. 1998. "Paying Off Student Loans," *Canadian Social Trends*, 51; Human Resources Development Canada (HRDC). 1998. *Canada Student Loans Program, 1999-2000: Full-time and Part-time Students Information Guide*. Ottawa: HRDC.

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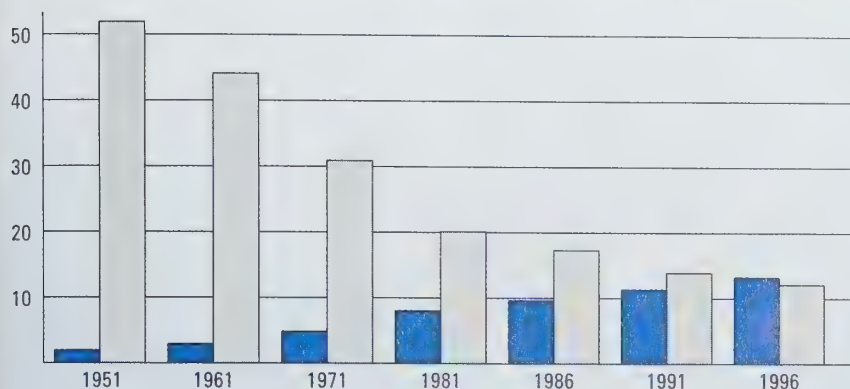
Full-time university enrolment rates¹ have risen dramatically since World War II



1. Total full-time university enrolment related to 18-24 population age group.

Sources: Statistics Canada, Catalogue nos. 81-568 and 81-229 and author's calculations.

% of population aged 15 and over

 University degree
 Less than Grade 9


Sources: Statistics Canada, Census of Canada, Catalogue no. 93-328 and special tabulations.

teacher training programs were transferred from non-degree granting teachers colleges to universities. Also, beginning in the 1970s, women enrolled increasingly in male-dominated fields of study such as law, engineering and medicine. In the 1980s and 1990s, the training of registered nurses was also transferred to universities.

By 1989, there were more women enrolled full-time at Canadian universities than men, and the percentage of women had continued to grow into the late 1990s. Women are still under-represented in engineering, mathematics and sciences; for example, in 1997 20% of bachelor's degrees in engineering were granted to women, up from less than 1% in 1950. But women have made major gains in law and medicine, where they now represent about half of the first professional degrees granted; in 1950, only 4% of law and 5% of medical degrees were granted to women.

Summary

In the postwar period, elementary-school enrolment increased faster in Canada than in any other industrialized country. Rising expectations, the

widespread belief in education as a means of upward mobility, and rising affluence encouraged students to stay in school longer. Governments increased expenditures on education to 8% of GDP at its peak in 1992. In 1997, Canada ranked among the world's educational leaders, with spending on education as a proportion of GDP second only to the United States among G7 countries.⁸

8. Organisation for Economic Co-operation and Development. 2000. op. cit. 57.

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Income and expenditures

by *Cara Williams*

In the early years of the 20th century, Canadians worked very hard to provide themselves and their families with food and shelter. Canada was predominantly rural and most workers were farmers or worked for room and board. However, of those individuals who did earn and report regular

wages, in 1901, the average wage was \$308 per year.¹ In 1997, reported average earnings were \$27,660 per year. It is certain that in terms of overall standard of living, Canadians are better off materially now than at the turn of the century.

That said, many people believe that their standard of living has been declining because incomes are not increasing as fast as they did in the 1950s and 1960s. Additionally, food banks and soup kitchens, once a memory of the Great Depression, reappeared in Canadian cities in the early 1980s and they continue to play an important role in providing nutrition to many people.² Family incomes fell substantially in the 1981-82 recession and did not recover until the end of the decade. Then the recession of the early 1990s, and the slow recovery that followed, stalled incomes again. This article briefly traces average incomes and consumer spending over the past 100 years, and identifies some of the factors that have contributed to their development.

The Wheat Economy and World War I

At the turn of the century, the fortunes of the Canadian economy were driven primarily by the agricultural sector. A 15-year period of economic growth, fuelled by growing foreign demand for wheat, necessitated the construction of massive infrastructure within Canada to meet that demand: the development of arable land, the manufacture of agricultural equipment, and the construction of the transcontinental railway. The influx

1. Earnings and income concepts have changed a great deal over the last 100 years. 1901 and 1997 wage data are used to illustrate the relative difference in earnings and may not be strictly comparable.

2. See Oderkirk, J. 1992. "Food Banks," *Canadian Social Trends*, Spring 1992.

of immigrants also required that homes be built for families and grain elevators be built for wheat storage, both of which helped to develop the lumber industry in British Columbia. Between 1901 and 1911, the stock of housing in Canada increased by almost 40%.³

In 1913, international wheat prices fell, real Gross National Product (GNP) declined and the Prairie Wheat Boom came to an end. But with the outbreak of World War I in 1914, wartime production propelled growth in the Canadian economy and helped to usher in the manufacturing age. Per capita GNP grew between 1914 and 1917, but high rates of inflation eroded any purchasing power that workers might have gained. Also contributing to lower earnings were the introduction of new taxes designed to help finance government war expenditures. In 1916, the first business profits tax was levied (retroactive to 1914), and a year later personal income tax was introduced.

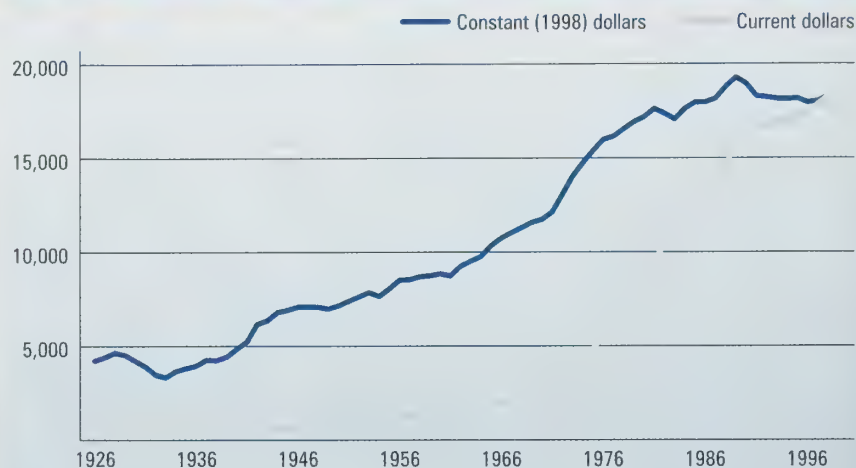
The 1920s

The 1920s began with a recession. During this time, estimated unemployment climbed to 14%. The average annual wage for workers (in current dollars) was estimated to be \$960 at the time of the 1921 Census. By 1924, the economy was growing again, and between 1926 and 1928, personal disposable income (income after taxes had been paid) increased by over 9%, from \$422 to \$460 per person. After much talk of a pension for the elderly, the Old Age Pensions Act, the first strand in the national social safety net, became law in 1927 and provided assistance to seniors 70 years and older.

3. For a more complete description of economic conditions during the 20th century, see Crompton, S. and M. Vickers. 2000. "100 years of labour force," *Canadian Social Trends*, Summer 2000.

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Although personal disposable income per capita¹ continues to rise, in constant dollars it has been relatively flat since 1991



1. Personal disposable income per capita is income remaining after taxes divided by the total population. Source: Statistics Canada, CANSIM Matrix Number 6967.

Growing personal income promoted new housing construction; at the same time, the price of consumer goods was declining. Goods previously only available to the wealthy, such as automobiles, were now mass-produced and became more affordable to many. The popularity of the automobile stimulated growth in the service sector: to serve the new motoring public, restaurants and service stations sprouted up along newly constructed highways. Other service industries, including banking and insurance, grew and retailing expanded rapidly.

While declining prices were a blessing for those with money to buy goods and services, other parts of the economy were clearly experiencing hardships because of reduced prices. This was the case for both the fishing and agricultural industries in the Maritimes. Foreshadowing what would happen across North America by 1930, declining prices for their products left farmers and fishers unable to participate in the burgeoning consumer economy.

Many hoped that the economic prosperity experienced in the 1920s

would continue, but the final year of the decade saw dramatic change. Declining global commodity prices and the stock market crash, coupled with a 1% slip in personal disposable income and a negative savings rate, halted the emerging consumer economy.

The Dirty Thirties

The stock market crash of 1929 sent the Canadian economy into a tailspin. While the Depression resulted in great hardship, it did not affect everyone in the same way. The brunt of the job and income losses was borne by the "working class," the farmers on the Prairies, and the fishers and mine workers in the Maritimes. In 1930, the average annual wage fell almost 11% from a decade earlier (from \$959 to \$854). In an attempt to protect fledgling manufacturing industries from foreign competition, the government increased import tariffs. Although this policy protected many manufacturing jobs, it worsened conditions for industries reliant on exports, such as farming and fishing.

Per capita personal disposable income plummeted by 44% over the

period 1928 to 1933. For every year between 1929 and 1936, the personal savings rate was negative as Canadians who had accumulated savings were forced to spend them in order to survive. For many without money put aside, savings offered no cushion and soup kitchens sprouted up across the nation to try to feed people. Consumer expenditures dropped by 27% between 1930 and 1934, meaning that firms that had been supplying consumer goods and services shut down, worsening employment conditions still further.

Beginning in 1934, the economy began a slow process of recovery. Unemployment declined and personal disposable income and consumer spending began to grow again, although they did not return to pre-Depression levels until the early 1940s. In 1940, unemployment insurance was introduced into Canada to provide income security to some workers. This program, to which both employers and workers contributed, represented another strand in the social safety net.

WWII and the postwar boom

World War II had a profound effect on the Canadian economy. It demanded agricultural products and manufactured goods. The economic boom generated by this global humanitarian disaster marked the beginning of a 20-year period of growth that has been unsurpassed in recent years.

In 1943, personal disposable income stood 117% higher than it had ten years before, at \$624 per person. As the war came to an end, growth in personal income slowed but still continued to rise, from \$692 per person in 1945 to \$801 per person in 1947. In an attempt to stabilize any postwar economic instability, the federal government enhanced the social security system by introducing family allowance. In 1945, mothers of children under 16 began to receive a monthly stipend of \$5 to \$8 per child.

In the 1950s, the economy was running at full throttle; between 1951 and 1960, inflation and unemployment were low and personal disposable income increased by 35% in current dollars. Economic prosperity and rapid population growth spurred what was a much more affluent lifestyle for the majority of Canadians.

During this time, an array of new social programs was developed. In the mid-1960s, the Canada and Quebec Pension Plans (CPP/QPP) and Guaranteed Income Supplement (GIS) were introduced to provide further support for old age pensioners, universal health care was established, and the Canadian Assistance Plan was developed to help systemize social assistance and to establish national guidelines for social programs.

Do more household conveniences lead to higher expectations?

The new affluence ushered in the age of mass consumerism, heralded by marketing and advertising. Canadians' expectations of the "necessities of life" rose substantially during the postwar period. After World War II, people were interested in building homes and providing more for their families. Suburban communities sprouted up, making automobile ownership a necessity.

Houses were filled with an increasing array of appliances designed to save time and effort: washing machines, vacuum cleaners, dryers, mixers, dishwashers, blenders, and later microwave ovens. New products were developed at almost breakneck speed and these items both fed and reflected the new affluence. For instance, in 1972 less than 10% of households had a dishwasher, but by 1997 almost half of all households contained one. Microwaves have been adopted even more avidly: in 1979, less than 5% of households had one, but by 1998 over 88% did. Conversely, the necessity of some appliances

has faltered as times change. The sewing machine is one example. In 1973, 68% of all households in Canada had a sewing machine, but only 55% in 1990.

The growth of the consumer economy is reflected in the spending patterns during this time. Between 1961 and 1970, real inflation-adjusted per capita expenditures on durable goods — items like cars, washers and dryers, televisions, furniture — increased by 70% from \$386 to \$650 per person.

The changing economy

Until 1972, the economy had been growing at an accelerated pace, more women entered the job market (over one million joined the workforce between 1960 and 1970), and Canadians prospered at almost unparalleled rates. Many people assumed the postwar growth would continue into the 21st century, but by the mid-1970s it was clear that it would not. In 1972, the inflation rate began creeping up and interest rates followed. The unemployment rate surpassed 8% in 1977.

In August of 1981, the bank rate peaked at slightly over 21%, and by 1982 the unemployment rate was over 11%. The postwar economic glow was replaced by the most serious economic downturn since the Depression. Food banks and soup kitchens once again spread across the country to help the most vulnerable.⁴ Faced with economic uncertainty, Canadians reduced their spending on goods and services and began saving more of their income. Between 1981 and 1982, real spending on consumer goods and services decreased by over 2%. Personal spending on certain durable and semi-durable items decreased even more dramatically; for example, consumer expenditure on

4. Oderkirk. 1992. op. cit.

In the early 1980s, the Canadian economy faced a severe recession. Throughout the decade that followed, it became apparent that the workforce was becoming polarized by the unequal distribution of earnings and hours among workers of different ages and skill levels. Compounding these economic factors was the changing family composition (that is, more lone-parent families) and the ongoing reductions in government transfer payments, so that even after the recovery, the proportion of Canadians living in low income situations persisted. Three groups are considered most at risk for low income — women, children, and the elderly.

Women and seniors in low income

In 1998, 13% of women (2 million) were living below the low income after tax cut-offs (LICO-IAT), compared with just over 11% of the male population. Senior women account for much of the difference between women and men. In 1998, 11% of women aged 65 and over, compared with almost 6% of senior men, reported income below the LICO-IAT.

Low income among seniors became a growing concern in the postwar period. In 1980, 26% of seniors (mainly women) still lived below the LICO-IAT; by 1998, the percentage had fallen to just under 9%. This decline was a result of more seniors being eligible to collect full Canada/Quebec Pensions, especially women, whose increased labour force participation meant that they had contributed to CPP/QPP independently of their husbands. The incidence of low income among seniors in husband-wife families decreased from 6% in 1980 to 2% in 1998.

Changing family composition significantly affects entry or exit of children into low income

In 1980, just prior to the recession, 12% of children in Canada were living in low-income families.¹ In 1996, the percentage reached a peak of over 17%; by 1998, it had declined to 14%. Family breakdown and parental unemployment are identified as two of the principal contributors to continuing high levels of children living in low-income households. For instance, in 1998, just over 38% of lone-parent families lived below the LICO-IAT, compared with only 7% of two-parent families. Similarly, among

families where the head of the household had experienced some unemployment in 1998, the incidence of low income was almost 15%; it was only 7% where the household head had not been unemployed during the year.

While it is a relatively rare event, changing family structure has a significant impact on a family's low-income status. A study of longitudinal data for the years 1993 and 1994² showed that 99% of children of lone parents who married³ left low income, compared with 21% of children who remained in lone-parent families. Similarly, in families where a separation occurred, 61% of children entered low income, compared with 13% of children in families where there was no separation.

Is low income a temporary or permanent phenomenon?

Roughly half the individuals who start a spell of low income in a given year will live below the threshold for only one year. However, several key factors influence the probability of experiencing low income for an extended period (four years or more): having a low level of education, being a student, living alone or living in a lone-parent family. As well, Canadians who have work limitations, who are members of a visible minority group or who immigrated later than 1976 have a greater likelihood of living in a low income situation over an extended period.

- For more information, see *Income in Canada*, Statistics Canada Catalogue no. 75-202-XIE; *Why Do Children Move Into and Out of Low Income: Changing Labour Market Conditions or Marriage and Divorce?*, Analytical Studies Branch, Statistics Canada Catalogue no. 11F0019MPE, No. 132; *To What Extent are Canadians Exposed to Low-Income?*, Analytical Studies Branch, Statistics Canada Catalogue no. 11F0019MPE, No. 146; *Women in Canada 2000*, Statistics Canada Catalogue no. 89-503-XPE.

1. Estimates of low income are based upon the 1992-based Low Income After Tax Cut-offs.
2. Low income in this study is defined as below 50% of the 1993 median adult-equivalent adjusted family income.
3. Marriage includes common-law relationships.

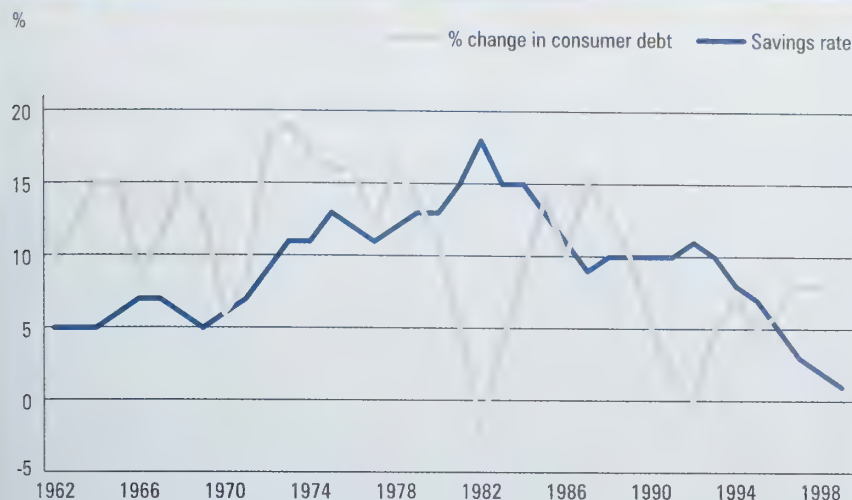
new and used motor vehicles dropped by almost 17%. The personal savings rate in 1982 increased to close to 18% of disposable income.

By the end of 1983, unemployment had edged down slightly, inflationary pressures had eased and spending rose again. By the end of the decade

Canadians had incurred more debt; over the course of the 1980s, consumer credit debt increased by 9% — from \$3,481 per person in 1980 to \$3,791 per person in 1989 in real terms — as credit became easier to obtain through loans and credit cards.⁵ The late 1980s also saw the beginnings of cutbacks in

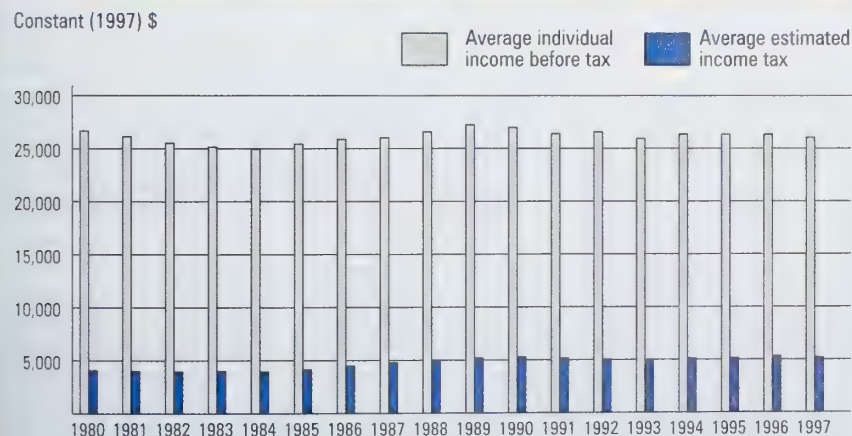
the social welfare system: the principle of universality was removed from family allowance and old age security, and unemployment insurance benefits were cut.

5. Consumer credit debt excludes mortgages.



Note: Change in consumer debt calculated using current dollars.

Sources: Statistics Canada CANSIM Matrix 6967 and CANSIM Matrix 751.



1. Individual income includes income from all sources (i.e. employment, investment and pension incomes, government transfers and other sources of income); estimated income tax includes federal and provincial income tax payable on income and capital gains.

Source: Statistics Canada, Catalogue no. 13F0022XCB.

On the other hand, the phrase "decade of excess" was coined to describe the 1980s. Apart from the 1981-82 recession, growth in consumer spending was strong during this decade. Electronic devices for entertainment, at first considered a luxury and a status symbol, became a

necessity within a few short years. By 1998, most households contained a VCR, a colour television, a compact disc player and cablevision; almost half had a computer.

Real per capita personal spending on consumer goods and services increased 18% over the 1980s. Spending

on services such as recreation, entertainment, education and cultural services grew by almost 50% per capita, from \$909 to \$1,358. The love affair with consumer durables continued unabated — real per capita expenditures on big-ticket items increased by 51% to over \$1,898 per person.

The 1990s were a turbulent time. The early part of the decade saw an economic downturn and government social programs were cut further. Unemployment rates hovered well above 10% in the early part of the decade; however, the recession was not accompanied by the high inflation rates that had plagued the late 1970s and early 1980s. In fact, after 1991, annual inflation was well below 3%, but incomes were flat. In real terms, average individual income fell by more than 2% in the first half of the 1990s (from \$26,991 in 1990 to \$26,327 in 1995). Coupled with increasing taxes, the result was the steady erosion of purchasing power: between 1980 and 1997, the average estimated tax burden increased by more than 27%, while real before-tax incomes declined by more than 2%.

With individual incomes declining, so did family incomes. Between 1980 and 1997, real before-tax income increased less than 1%, but over this same period the average income tax paid by families increased by 32%. The result was a decline in after-tax family income of 5%.

Nevertheless, spending on consumer goods and services continued to rise in the 1990s. Between 1990 and 1999, real per capita personal spending on consumer goods and services increased by almost 12% (from \$14,801 to \$16,533).

Some of this spending was financed with credit, and the volume of consumer debt increased in the 1990s. Real consumer credit debt (including credit cards) increased between 1990 and 1999 by 22% to reach its highest level ever (\$4,584 per

person). At the same time, the personal savings rate dropped from 9.5% to 1.4% of disposable income, a decline of more than 85%.

Summary

The 20th century has been a time of enormous improvement in the general economic well-being of Canadians. At the beginning of the century, most people had little money available for anything beyond the necessities. The century saw both the Great Depression and the unparalleled growth of the 1950s and 1960s. It is perhaps a result of the enormous growth of the postwar period that Canadians feel at the end of the 1990s that their economic well-being has declined. The 1980s and 1990s have been a difficult time for many: jobs no longer offer lifetime security, and stagnant wages, coupled with government restraints, have left Canadians feeling that their standard of living is being eroded.

Although the 1990s began with a recession, they ended with a strong economic recovery. Unemployment levels were lower than they had been for 10 years. For the first time since 1972, the federal and some provincial governments were running surpluses, income tax rates began to drop and disposable income began to rise at rates higher than inflation. Canadians began to hope that the economic prosperity of the late 1990s would result in greater purchasing power and more wealth.

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HEALTH

by Susan Crompton

If health is to be prized more than wealth, then the rise in Canadians' overall material standards during the 20th century is nothing compared to

the vast improvements in their health status. In the 19th century, infectious and communicable diseases like typhoid, cholera, diphtheria, scarlet fever and many others devastated Canada's farming communities, towns and cities. Deaths from infection of wounds and septicemia due to unhygienic practices and conditions were common, and puerperal fever following childbirth killed thousands of women.

Infectious and communicable diseases arrived in Canada by ship from Europe and Asia and traveled up river systems from New York and New Orleans. There were four major outbreaks of cholera between 1832 and 1854. Diphtheria epidemics occurred fairly regularly in the later 19th and early 20th century. Measles epidemics, which generally attacked children between three and seven years old, were common (for example, in 1846 in the Red River district). In the late 19th century, over 3,000 Montrealers died in a smallpox epidemic, even though a vaccine was available.¹ The last outbreak of smallpox was recorded in Windsor, Ontario, in 1924.

The development of the science of bacteriology in the last half of the 1800s transformed the relationship between humans and disease. Armed with the knowledge that microbes transmit disease, physicians learned that they could control disease by preventing such transmission. Largely because of the control and prevention of infectious diseases by public health programs, Canadians' life expectancy has changed dramatically in the past 100 years. Between the 1920s and the 1990s, life expectancy for a Canadian newborn rose from 59 to 78 years. Women recorded an additional 20 years, from 61 to 81 years; and men, 16 more years, from age 59 to 75. This article looks briefly at changes in health over the last 100 years, with special focus on the current concerns of Canadians in childhood, mid-life and old age.

Most leading causes of death are now very different

In the early 1920s, the biggest killers of Canadians were heart and kidney diseases.² With an annual mortality rate of 222 per 100,000 population, they were the leading causes of death. The next most common cause was influenza, bronchitis and pneumonia (141 per 100,000), followed by diseases of early infancy. Tuberculosis (TB) took more lives than cancer. Intestinal illnesses like gastritis, enteritis and colitis, and communicable diseases such as diphtheria, measles, whooping cough and scarlet fever, were also among the leading causes of death.

The large-scale introduction of vaccines and antibiotics completed much of the work begun by public health programs. Vaccines against diphtheria, tetanus, typhoid and cholera had been developed in the late 19th and early 20th centuries;³ penicillin became available in the 1940s, offering a cure for tuberculosis, septicemia, pneumonia, and typhoid, among other illnesses.⁴ By 1950, the number of people diagnosed with diphtheria and typhoid had plummeted to less than 5 per 100,000; by the 1970s, the

1. Authorities instituted a mandatory vaccination program against smallpox, but Montrealers rioted in protest. Resistance subsided only with the mounting death toll. Briggs, E. and C. Briggs. 1998. *Before modern medicine: Diseases and yesterday's remedies*. 80.
2. Leacy, F. H. 1983. *Historical Statistics of Canada* (2nd ed.). Mortality rates for cardiovascular and renal disease are reported as a single category.
3. Porter, R. 1997. *The Greatest Benefit to Mankind: A medical history of humanity from antiquity to the present*. 439, 442-443.
4. The influenza pandemic of 1918-19 killed 21 million people worldwide, 50,000 in Canada; death was due mainly to pneumonia because, in the pre-penicillin era, it could not be treated. Briggs and Briggs. 1998. op. cit. 22, 61.

	Rate per 100,000
1921-25	
All causes	1,030.0
Cardiovascular and renal disease	221.9
Influenza, bronchitis and pneumonia	141.1
Diseases of early infancy	111.0
Tuberculosis	85.1
Cancer	75.9
Gastritis, duodenitis, enteritis and colitis	72.2
Accidents	51.5
Communicable diseases	47.1

1996-97	
All causes	654.4
Cardiovascular diseases (heart disease and stroke)	240.2
Cancer	184.8
Chronic obstructive pulmonary diseases	28.4
Unintentional injuries	27.7
Pneumonia and influenza	22.1
Diabetes mellitus	16.7
Hereditary and degenerative diseases of the central nervous system	14.7
Diseases of arteries, arterioles and capillaries	14.3

Note: Disease categories not identical over time. Rates in 1996-97 are age-standardized.

Sources: Statistics Canada, Catalogue nos. 11-516 and 84-214.

incidence of diseases like measles, whooping cough and scarlet fever were so low that these illnesses were considered mainly nuisances. This may be why cases of measles and whooping cough became more common in the first half of the 1990s, suggesting that vaccinations against these diseases were being abandoned as parents forgot they could be killers. By the late 1990s, however, incidence rates for both diseases had fallen again.

Since 1987, the rate of new active cases of tuberculosis has remained fairly stable at about 6 per 100,000. However, TB is an opportunistic disease, attacking those whose resistance to infection is already compromised by malnutrition or poor

living conditions; the incidence rate of TB in the Aboriginal population, for example, is four times as high as that in the general population.⁵

At the close of the 20th century, cardiovascular disease (heart disease and stroke) remains the leading cause of death among Canadians, as it had been when the century began. Nevertheless, it has declined dramatically in the last 50 years, probably reflecting changes in lifestyle (not smoking, eating a low-fat diet, exercise) and improvements in treatment (new pharmaceutical, medical and surgical techniques). In contrast, the rate for cancer has grown to become the second leading cause of death in Canada, compared to fifth in 1921.

However, the mortality rates for different age groups show very clearly that these two diseases are the biggest killers of older people. Cardiovascular disease is the primary cause of death among Canadians aged 75 and over, while cancer is the leading cause of death among Canadians aged 40 to 69. Unlike 100 years ago, when the principal victims of many diseases were children, Canadians now die mainly of diseases related to growing old.⁶

New health problems emerge in childhood

In 1921, the mortality rate for children under one year old was 102 per 1,000 live births; effectively, 10% of children did not live to their first birthday, 4% for less than one month. Within 25 years, the rate had been almost halved to 48 per 1,000 in 1946, and by 1996, it had dropped below 6 per 1,000 live births.

Lower neonatal infant mortality is associated with better prenatal care, including better nutrition during pregnancy, improved hygiene and technological advances in caring for the fetus before, during and after delivery. Immaturity and congenital abnormalities — problems that are now routinely handled in neonatal units — accounted for the majority of infant deaths in the early 1930s; the other principal killers (diarrhoea and enteritis, bronchitis and pneumonia,

5. Health Canada, Statistics Canada and Canadian Institute for Health Information. 1999. *Statistical Report on the Health of Canadians*. 280.

6. For example, the increasing age of the population has had a substantial effect on the growing incidence of cancer in Canada. It is estimated that, in 1995, aging of the population alone accounted for one-third of over 30,000 cancer deaths among men and more than one-quarter of over 25,000 deaths among women (assuming that mortality rates prevailing in 1971 remained constant.) National Cancer Institute of Canada. 2000. *Canadian Cancer Statistics 2000*. 28-29.

Public health: Cleaning up cities cleans out major diseases

Epidemics were almost commonplace in 19th century Europe's industrial cities. Overcrowded, with overflowing cesspits, garbage piled underfoot in the streets and yards of residential and commercial buildings, and unsafe drinking water, the impoverished working class tenements of British, German and American cities bred typhoid, scarlet fever, whooping cough, diphtheria and many other diseases. The biggest killer was tuberculosis; the most frightening was cholera.

When breakthroughs in bacteriology showed that many of the worst diseases were spread by bacteria and viruses in water, air and food, authorities were able to deal much more effectively with epidemics. Public health medicine prescribed clean water, sewage disposal, garbage removal and the sanitary handling of food to prevent epidemics. Cities that provided clean filtered drinking water, proper sewage disposal and garbage removal from the streets recorded dramatic and steady declines in outbreaks of infectious and communicable diseases. In hospitals, using simple antiseptics such as carbolic acid and iodine to treat wounds, and demanding that physicians wash their hands between patients, greatly reduced deaths from infection.

Public health councils were introduced to regulate and enforce "sanitary control" in England beginning in the 1850s and 1860s; in the United States, procedures were adopted somewhat piecemeal starting in the 1870s.

In Canada, the provinces started establishing boards of health in the 1880s to administer and enforce public health regulations. These provincial and municipal boards could, for instance, investigate the origins of outbreak of disease, enforce quarantines, and impose compulsory vaccinations. As their duties and responsibilities grew, boards became more professional, employing specialists in public health medicine to develop and administer programs.

By the late 19th and early 20th century, most of the epidemic killers of European and North American urban populations were under control and mortality rates were down substantially.

- For more information, see Briggs, E. and C. Briggs. 1998. *Before modern medicine: Diseases and yesterday's remedies*. Winnipeg: Westgarth; Dominion Bureau of Statistics. 1967. *Canada: One hundred, 1867-1967*. Ottawa: Ministry of Trade and Commerce; Porter, R. 1997. *The Greatest Benefit to Mankind: A medical history of humanity from antiquity to the present*. London: HarperCollins Publishers.

and communicable diseases) are now largely preventable with standard hygiene practices and vaccines or are curable with antibiotics.

Chronic problems rather than acute illness now comprise the principal health difficulties of Canadian children. Partly because of improved medical intervention, including neonatal technology and increased multiple births, there appears to be a growing trend toward pre-term births (less than 37 weeks) and low birthweight babies

(under 2,500 grams). (The two conditions are often linked; in 1996, 53% of premature babies were low birthweight.) Small babies not only have higher mortality rates than babies of normal weight, they also have more health problems that may last into adulthood. A 1999 study of Canadian children under age 3 showed that being a pre-term low birthweight baby, and having a mother who was in poor health, were both significantly associated with a child being in poor health.⁷

The rapid growth in the incidence of asthma also alarms health professionals. The percentage of Canadian children under 15 diagnosed with asthma increased from less than 3% in 1978-79 to over 11% in 1994-95. Asthma is more often reported among boys than girls (13% versus 9%), among school-age children than preschoolers (13% versus 7%), and among children in either low- or higher-income homes. Having a history of bronchitis or allergies, and having a parent or parents who also have a history of asthma, are significantly associated with asthma in children. Quality of life for asthmatic children can be significantly impeded: compared with other children, those with asthma are seven times as likely to be in only fair or poor health (7% versus 1%) and four times as likely to have activity limitations (13% versus 3%).⁸

Health status improving in young and middle adulthood

Accidents (mainly motor vehicle accidents, falls, suicides and homicides) were the single largest cause of death among young adults aged 25 to 39. The mortality rate ranged from 37 to 40 per 100,000 in 1997, with car accidents the main cause of accidental deaths. Dying from cancer is notable only by its rare occurrence: the mortality rate for cancer ranged between 7 and 24 per 100,000. In fact, the National Cancer Institute of Canada estimates there is only a one in 90 probability that a 30-year-old woman will develop cancer by the time she is 40, and a one in 143 probability that a man the same age will do so.

7. Chen, J. and W. J. Millar. 1999. "Birth outcome, the social environment and child health," *Health Reports*, 10, 4 (Spring 1999)

8. Millar, W. J. and G. B. Hill. 1998. "Childhood asthma," *Health Reports*, 10, 3 (Winter 1998)

On the other hand, cancer is the principal killer of Canadians in their 40s and 50s. Mortality rates remain comparatively low, though: in 1997, less than 100 per 100,000 for adults in their 40s, and between 160 and 300 for those in their 50s. Lung, breast and colon cancers are the three biggest killers.

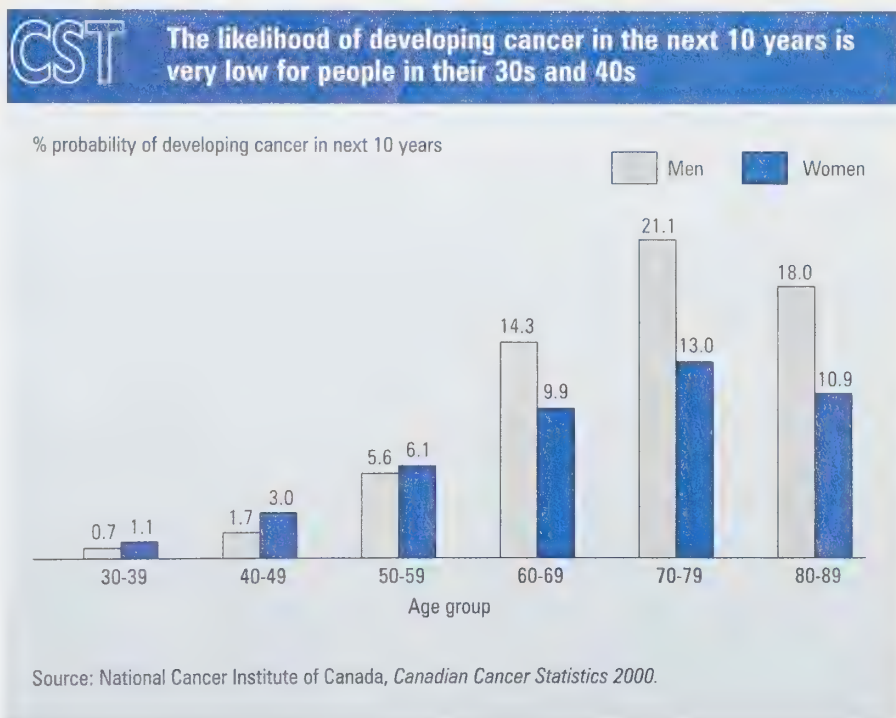
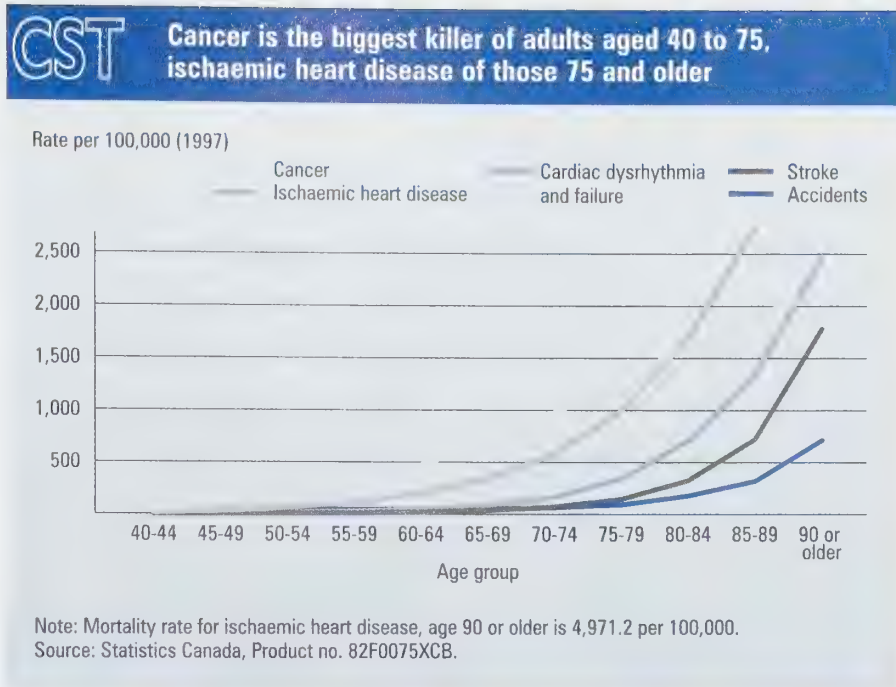
Probably of greater day-to-day worry to adults in later mid-life are the creaks and aches that herald advancing age. On the whole, though, Canadians are healthier now than they were 20 years ago by a number of measures. A recent analysis of adults in three different age cohorts found that, after controlling for the effect of age, the odds of having heart disease, high blood pressure, arthritis and activity limitations were significantly lower for both men and women today than in the late 1970s.⁹

Improved treatment of disease has contributed to the better health of Canadian adults, as have health education efforts aimed at disease prevention. Asked in 1996-97 if they had done anything in the previous year to improve their health, almost half (48%) of 45- to 64-year-olds said they had. Most often, this health-conscious group of Canadians had increased the amount of exercise they took, although many said they had lost weight or improved their eating habits.

Another factor to which researchers attribute improved health is the lower prevalence of smoking. The National Cancer Institute of Canada cites smoking as the cause of one-quarter of all deaths among 35- to 84-year-olds. The substantial drop in smoking rates among mid-life adults is associated with declining rates of heart disease and stability in the incidence rates for certain types of cancers.

Most seniors still grow old at home

Cardiovascular disease is the major cause of illness, disability and death in Canada, and one of the major causes



of hospitalization in this country.¹⁰ It is the leading cause of death among Canadians over the age of 75. Mortality rates in 1997 rose from 1,735 per 100,000 for people aged 75 to 79 to almost 11,000 for seniors 90 or older.

Since the 1980s, mortality rates for both categories of heart disease (heart attack and ischaemic heart disease)

have been falling, while those for stroke have remained fairly constant.

9. Chen, J. and W. J. Millar. 2000. "Are recent cohorts healthier than their predecessors?" *Health Reports*, 11, 4 (Spring 2000).

10. Heart and Stroke Foundation of Canada. 1999. *The changing face of heart disease and stroke in Canada 2000*. v.

	Age 32-49		Age 50-67		Age 68-85	
	1978-79	1996-97	1978-79	1996-97	1978-79	1996-97
	%					
Men						
Heart disease	1.4	1.1	10.5	8.1	20.4	19.8
High blood pressure	9.7	5.0	21.7	18.6	32.2	26.0
Diabetes	1.1	1.7	4.5	7.2	4.6	12.1
Arthritis	6.1	5.3	23.6	17.3	32.3	30.9
Activity limitation	8.5	8.7	23.5	16.9	35.6	25.2
Daily smoker	47.6	31.8	42.6	24.7	29.6	13.9
Overweight	32.8	36.0	43.8	42.3	32.0	31.6

Source: Statistics Canada, Catalogue no. 82-003, 11, 4 (Spring 2000).

However, with an increasingly large elderly population, death rates from ischaemic heart disease and stroke are expected to rise throughout the first decade or more of the 21st century.¹¹

Cardiovascular disease and many other long-term health conditions common to later years, including dementia, can result in chronic pain, disability and activity limitation. In 1996-97, 25% of seniors lived with chronic pain and 28% had some kind of activity limitation because of a long-term health problem. Senior women had a greater chance of having a chronic condition than men of the same age group. The most common chronic ailment was arthritis (42%); others included high blood pressure (33%), food and other

allergies (22%), back problems (17%) and diabetes (16%). Many seniors had more than one chronic condition. On the whole, though, most seniors (78%) reported themselves to be in good to excellent health.

Nevertheless, one of many seniors' greatest fears is that their declining health will lead to their eventual commitment to a health care institution. In fact, very few seniors actually live in long-term health care facilities; in 1995, only 5% of the senior population aged 65 or older (and 18% of those aged 80 or older) was in an institution. Of course, health status is a key predictor of institutionalization. The odds of living in a health care institution are higher for seniors who need personal care (bathing, dressing,

etc.), have chronic health problems (particularly Alzheimer's), experience urinary incontinence, or suffer the effects of stroke. Socio-demographic factors also play a role: being over age 80, being unmarried, having less than Grade 9 education and having a lower income, also increase the odds of living in a health care institution.¹²

Getting help at home can prevent or delay the need for a senior in poor health to enter a health care facility. In 1996, about 22% of seniors in private households (over 750,000) were receiving some care at home because they had a long-term health problem. The majority of this caregiving was being provided by family and friends, but some seniors also received additional care provided by professional or volunteer organizations, or from a caregiver hired by the senior. As for publicly funded home care, in 1998-99, about 8% of seniors aged 65 to 79 and 28% of those aged 80 or older were receiving it.

Low income and poor health

The principal reason for introducing universal health care in Canada was to ensure that no-one could be denied access to health care because they were unable to pay. But almost 40 years after its introduction, people with low incomes are more likely to be afflicted by a variety of diseases, to be in poor health and to have lower life expectancy than people with high incomes. This disparity exists despite the fact that low-income Canadians use health care services more frequently than those with higher incomes; in 1998-99, people with low income were more likely to visit their doctors frequently,

11. Ibid.

12. Trottier, H., L. Martel, C. Houle, J.-M. Berthelot and J. Légaré. 2000. "Living at home or in an institution: What makes the difference for seniors?" *Health Reports*, 11, 4 (Spring 2000).

to go to emergency departments for care and to be admitted to hospital. They were also more likely to be using more than one medication.¹³

Certainly, risk behaviour and health status are closely related to educational level (and education and income are highly correlated). People with more education are less likely to smoke, drink heavily or be overweight; they tend to be more physically active and to have a positive outlook on life and good mental health. More people with a university degree also had better health care coverage for dental care, vision care and prescription drugs, probably provided as an employment benefit.¹⁴

Research findings like these suggest that social, environmental and genetic factors play key roles in determining an individual's health status. Thus, it seems possible that health education and making disease prevention the primary goal of health care could ultimately produce improvements in the health status of low-income Canadians.

Summary

Advances in public health measures and sanitary control, pharmaceuticals and medical technology in the 20th century have had a dramatic effect on the overall level of health in Canada. Diseases that caused deadly epidemics in the 19th century — cholera, typhoid, tuberculosis, measles, whooping cough and many others — have been virtually eliminated; death from infection has become rare in an era when cleanliness is standard practice and antibiotics are available. Life expectancy has increased by almost 20 years and the general overall level

13. "Health care services — recent trends," *Health Reports*, 11, 3 (Winter 1999); "Life expectancy," *Health Reports*, 11, 3 (Winter 1999).

14. *Statistical Report on the Health of Canadians*, Statistics Canada Catalogue no. 82-570-XIE. 1999.

Today's nightmare diseases

Cancer

In 2000, an estimated 132,100 new cases of cancer will be identified in Canada, most commonly prostate cancer for men and breast cancer for women. But after rising for many years, incidence rates for prostate cancer began to fall in 1994, while those for breast cancer have grown steadily for 30 years. In 2000, a projected 65,000 Canadians will die of cancer, most commonly of lung cancer, which accounts for one-third of male and one-quarter of female cancer deaths. Overall cancer mortality rates have been declining for men since 1988, and for women since the 1970s (except for lung cancer).

The probability of developing cancer is fairly high over a person's entire lifetime — one in 2.5 for men and one in 2.8 for women. Nevertheless, cancer is most often diagnosed in older Canadians: 70% of new cases and 82% of deaths are reported for people age 60 or older.

HIV infection/AIDS

Between 1985 and the end of 1999, a total of 45,534 Canadians had tested positive for HIV infection. The main victims of HIV infection have changed in recent years. Over the period 1985-94, 75% of HIV diagnoses were among men who have sex with men; in 1999, the proportion was 37%. In contrast, infection is increasing among intravenous drug users, from 9% in 1985-94 to 28% in 1999. HIV is also more frequently diagnosed among women now: 24% of new cases in 1999, compared with less than 10% over the 1985-94 period. There has also been an increase in HIV exposure via heterosexual sexual contact, from about 6% of positive tests in 1984-95 to over 19% in 1999.

From 1985 to 1999, a cumulative total of 16,913 Canadians had been diagnosed with AIDS; about 70% had also died of AIDS over this period. But mortality has dropped substantially in recent years. In 1994 and 1995, AIDS deaths reached highs of over 1,400 per year, but less than five years later (1998 and 1999), the numbers had fallen to only 249 and 106, respectively.¹

- For more information, see National Cancer Institute of Canada. 2000. *Canadian Cancer Statistics 2000*. Toronto: Division of HIV/AIDS Surveillance; Health Canada. 2000. *HIV and AIDS in Canada: Surveillance Report to December 31, 1999*. Ottawa: Health Canada.

1. 1998 and 1999 figures not adjusted for reporting delay.

of health seems to be improving for each successive generation.

However, the World Health Organization (WHO) has warned that a number of infectious diseases, including tuberculosis and pneumonia, are becoming increasingly resistant to antimicrobial drugs. The emergence of drug-resistant TB is of particular concern because it appears to be closely associated with HIV infection. At the same time, WHO's 1998 annual report

identifies Canada as part of the trend toward a population that will be longer-lived, with a life expectancy of 81 years by 2025. It further forecasts that Canadians will enjoy good health throughout most of that extended lifespan, as disability due to heart disease and some cancers continues to decline.

Susan Crompton is Editor-in-Chief of *Canadian Social Trends*.

URBAN DEVELOPMENT

by Frances Kremarik

When the first French settlers came to Canada in the 17th century, easy access to water was crucial because it was the only means of long-distance transport available. They settled along the shores of the St. Lawrence River in Quebec, and the seigneurial system distributed land in long narrow strips so that every farmer had a shorefront and access to the river. Major towns — Quebec City, Trois Rivières and Montréal — grew up along the St. Lawrence. Settlers in the Maritimes, both French and English, were also dependent upon water for transportation and communication. It provided the livelihood for most settlers, whether fishers or traders; Halifax, for instance, became the country's premier port.

Enticed by land grants and British rule, United Empire Loyalists started to settle in modern-day Ontario after the American Revolution. The St. Lawrence was still critical to transportation and communication, linking the Atlantic to the Great Lakes and helping to make cities like Kingston and Niagara Falls into prosperous communities.

In the 19th century, the railway became the country's second major transportation link; as such it became the magnet for the next wave of town and city building. Eastern Canada was laced with tracks connecting small communities and operated by a number of companies in a thriving competitive industry, and the mass settlement of western Canada at the end of the 19th and at the start of the 20th century was supported by the expanding tracks of the Canadian Pacific Railway (CPR).

Now, we are a nation that is connected by air and road as well as by water and rail. There are almost 14 million cars on roads that run over 900,000 kilometres and almost 2,000,000

passengers fly every month to and from destinations in Canada. But still, we live in the cities and towns that rose to prominence because they were important centres on the original "highways" created by water and rail.

Bright lights, big cities?

The towns and cities at the turn of the 20th century were small and compact. There were few highrise buildings,¹ and those that did exist were predominantly commercial. With the vast majority of people relying upon horse-drawn transportation or walking to reach their destination, industrial and commercial activities developed in close proximity to residential areas. In cities where streetcars and other forms of public transit had been introduced, people were able to live further away from the city centre, provided they remained close to the transit lines. This pattern of settlement created a "spoke" type of development in the city. Ultimately, public transit and private automobiles contributed to the segregation of land uses within the city, instead of a system of mixed industrial, commercial and residential use.

The average city at the turn of the 20th century may have been small, but it did have its slums. Although immigrants had been recruited to come to Canada to be farmers, a substantial proportion settled in cities. The majority of these newcomers were employed as low-paid unskilled and semi-skilled labour, swelling the ranks of the urban working class.² Forced to live among the smokestacks and factories with little if any public sanitation, the housing conditions of the working class were considered appalling by many social activists. Urban crowding and poor public sanitation resulted in frequent epidemics that did not always remain confined to the urban slums. By the time of the First World War, a movement to improve working class areas of the

cities had appeared.³ Following a typhoid epidemic in 1914, Montréal introduced a new water filtration system; during the same period, Toronto built a new sewage treatment and filtration plant and extended the city's sewer system. Municipal governments implemented health and safety programs that included improving sewers, cleaning streets, installing street lighting, and even providing access to hydroelectric power.⁴

When times were tough

After World War I, Canada became an industrial nation, a significant change from the days prior to the outbreak of war. Agriculture continued to be very important, but it became more and more mechanized in the drive to gain efficiencies. This in turn decreased the opportunities for employment on the farm and the flow of people moving from rural to urban areas accelerated. The shift toward urban residency can be seen in home ownership rates. In 1931, 79% of rural households owned their homes, but only 46% of urban households could say the same. This reflected the movement of rural families to urban areas, who came hoping for better opportunities and work but often had few financial resources. Some people still move to the city for the same reasons today.

The housing growth experienced after the Great War, by the cities in particular, came to an abrupt halt with the onset of the Great

1. A highrise building is defined as being five stories or higher.

2. Finkel, A., M. Conrad, and V. Strong-Boag. 1993. *History of the Canadian Peoples: 1867 to the Present*.

3. Douglas, A. 1997. *The Complete Idiot's Guide to Canadian History*.

4. At that time, the majority of urban dwellings relied upon coal and wood for cooking and heating. The smoke and residue strongly contributed to the poor air quality of the cities.

Depression in 1929. More than 450,000 new dwellings were built between 1921 and 1931; but only 340,000 were built between 1931 and 1941, even though there were 430,000 new families. Many families, but especially young men, migrated from the country to the city in search of work. Few were successful, and many depended upon relief for food and housing.

The car revolutionizes cities

The peace following World War II marked an unprecedented economic and population boom. Soldiers returned from the war, entered the workforce, married and demanded new homes for their new families. Contributing to the boom in urban growth was the massive influx of immigrants into Canada, most of whom settled in cities; by 1961, more than 80% of all foreign-born Canadians lived in urban areas, compared with two-thirds of the Canadian-born population.

Home ownership was part of the dream of respectable "middle-class" living: one generally enjoyed more living space than renters in addition to having equity in a property. The low-density housing preferred by this newly affluent society could only be built where land was cheap, that is, outside the city; but only ownership of a private automobile made large-scale development outside the city core feasible. With increasing car ownership (by 1960, almost 70% of Canadian households owned at least one car), people were now able to live even further away from city centres or their places of work. They were no longer dependent on public transit and its scheduling constraints but they had not increased their commuting time. And so began the suburban explosion.

The federal government also played an important role in the post-war housing boom. Prior to the Depression, it was quite common for

The new towns grew up at the whistle stop

In 1900, Canada had a population of just over 5 million. Two-thirds of Canadians lived in rural areas and were dependent for their livelihood upon farming and the farming economy. The Prairies were just starting to be opened up to wide-scale agriculture. The national population grew by 1.9 million people from 1901 to 1911; almost two-thirds of this growth (1.1 million people) occurred in the western provinces and territories.

The new settlers flooding into the west created a landscape of sod-built houses, or "soddies", across the Prairies as more than 200,000 homesteads were settled in the first decade of the 1900s; in 1901, almost one-fifth of all homes in the Territories¹ were classified as "other".² After a few harvests, settlers were able to move out of their soddies, and, lacking stone and brick for homes, build themselves wooden houses. Whistle stops along the railway tracks provided a central place to receive supplies from the trains and then sell them to surrounding homesteaders. Naturally enough, towns began to develop at these distribution sites, and as the rural population grew, so did urban centres like Calgary, Edmonton, and Saskatoon.

- For more information, see Finkel, A., M. Conrad, and V. Strong-Boag. 1993. *History of the Canadian Peoples: 1867 to present*. Toronto: Copp Clark Pitman.

1. In 1901, Alberta and Saskatchewan had not yet entered into Confederation as provinces and were classified, along with northern parts of present day Manitoba, Ontario, Quebec and the present-day territories, under the collective title of "The Territories".

2. The categories for housing materials were wood, brick, stone, composite, and other.

people buying a house to pay over half of the purchase price with their own savings and to borrow the remainder from family and friends. Loans obtained from financial institutions were normally paid back within five years.⁵ During the Depression, the government attempted to stimulate needed construction by passing a number of acts related to housing. After World War II, the Central (now Canada) Mortgage and Housing Corporation (CMHC) was established in order to administer this legislation. Its primary function was to grant and insure mortgages. In this role, CMHC was directly responsible for the construction of half a million homes between 1945 and 1951.⁶

From 1949 to 1960, more than two-thirds of all new residential dwellings built were single detached houses, the basis of the suburban lifestyle. By 1971, the dream of owning a family home was a reality for

the majority of Canadians: 60% of households owned their home. They were also paying for that dream: more than half of all homeowners in 1971 had a mortgage, compared to less than one-third in 1951. The homes were also getting larger. In 1951, the average owner-occupied dwelling had 5.8 rooms; by 1971, it had 6.1 rooms. In contrast, rental housing was getting smaller, shrinking from an average of 4.5 to 4.4 rooms over the same period.

The city centre moves out to the suburbs

With cities expanding into previously rural areas, shopping centres, restaurants, and other service providers

5. Harris, R. 1991. "Housing," *Canadian Cities in Transition*. 354-356.

6. Finkel et al. 1993. op. cit. 430.

Rapid growth of car ownership encouraged suburban development in the 1950s and 1960s...

	Passenger automobiles (000s)	% change in automobile registrations	% change in population
1946	1,235	--	--
1951	2,106	71	14
1956	3,222	53	15
1961	4,326	34	13
1966	5,481	27	10
1971	6,967	27	8

... and suburbs allowed Canadians to buy larger and larger homes

	Population (000s)	Number of occupied dwellings (000s)	Rate of ownership	Number of rooms ¹ per owned dwelling	Number of rooms ¹ per rented dwelling
1941	11,490	2,573	57	5.5 ²	--
1951	13,623	3,350	66	5.8	4.5
1961	18,238	4,554	66	5.8	4.4
1971	21,568	6,031	60	6.1	4.4
1981	24,343	8,282	62	6.6	4.3
1991	27,297	10,018	63	7.0	4.5
1996	28,847	10,820	64	7.1	4.5

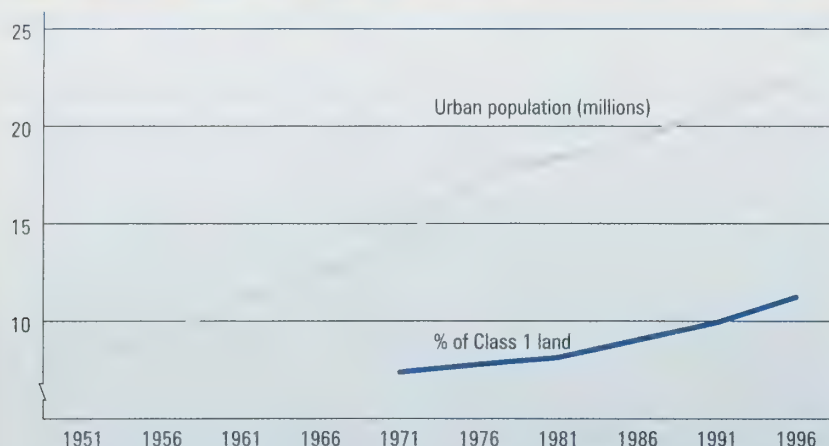
-- Data not available.

1. A room is an enclosed area within a dwelling which is finished and suitable for year-round living.

2. The figure is for both rented and owned dwellings.

Sources: Statistics Canada, CANSIM matrix T148 and Catalogue nos. 93-357-XPB and 92-932.

As the cities grew, more of the best farmland was used for urban development



Note: Data on land use not available for 1976 and 1986; trend line created for these years.
Sources: Statistics Canada, Catalogue nos. 16-200-XKE and 93-339.

began to locate in the outer edges of the city in order to be closer to their customers. Although this was convenient for suburbanites, it lured away the commercial activity that had formerly been directed to the city centre. The downtown areas of cities began to reflect the falling investment as businesses and commercial interests focused on areas that provided greater site acreage for development and a larger potential for revenue. Public transit systems that had been built in the 1960s to funnel workers and shoppers into the city core had to provide alternate routes to capture new passenger flows.

The increased use of the automobile also sucked the vitality from some smaller communities, especially those near metropolitan areas. Local opportunities diminished and some towns became "bedroom communities" — towns that are no longer economically self-sufficient and whose primary function is to provide housing for individuals working in the metropolitan centre. More and more bedroom communities developed as the substantial increase in the number of cars on the road resulted in major road infrastructure projects. Although new highways made it easier to visit the countryside, it also made it easier to commute into the city from the countryside; as such, it spawned further suburban development that contributed to the destruction of the rural environment.

Not only were cities growing "out", they were also growing "up". Faced with higher land costs in the city, the 1960s witnessed the construction of high-rise buildings for both commercial and residential uses. The majority of high-rise apartments were occupied by renters, in contrast to the high ownership rate of single detached dwellings in the suburbs. Cities' downtown cores, however, were dominated by commercial buildings that just kept growing and growing,

Census metropolitan area	Average house value (\$)	Rate of ownership (%)	Average monthly ownership cost (\$)	Average monthly rental cost (\$)
St. John's	105,487	68	724	532
Halifax	115,582	60	761	598
Saint John	89,084	66	608	450
Montréal	131,838	49	814	542
Ottawa-Hull	154,234	59	931	670
Toronto	238,511	58	1,070	758
Winnipeg	97,824	64	681	507
Regina	89,708	66	667	491
Calgary	154,203	66	847	602
Edmonton	127,986	65	761	539
Vancouver	318,127	59	942	754

Source: Statistics Canada, Product no. 93-330-XPB.

creating an imposing and dominating landscape. In Montréal, city planners started developing underground shopping malls and walkways to connect commercial buildings, an idea taken up by Toronto in the 1980s.

Affordable cars and inexpensive gas had fueled the suburban explosion of the 1950s and 1960s. The rate of expansion came under pressure during the oil crisis of the 1970s, the resultant economic downturn and stagflation. People were not about to give up their cars, though: car ownership had increased to almost 80% of households by 1975, and over 20% owned more than one vehicle. Instead, smaller, more economic vehicles began to replace the gas-guzzling "boats" of the 50s and 60s. Public transit also became a popular issue in municipal politics as people looked to find a more inexpensive means of commuting to work.

New housing options developed in the 1980s

The 1980s started with the most severe recession since the Depression 50 years before, and the housing industry was especially hard hit. When the economic cycle regained its upswing in the

mid-1980s as spending increased on big-ticket items like cars and housing, the demand for housing exploded in southern Ontario, focused mainly in Toronto. Development continued to expand the urban centres outward, pushing suburbs even further from the city core. Homeowners continued to acquire bigger homes, with the average size of an owner-occupied dwelling growing to 7.0 rooms in 1991. In 1981, the average cost of a home was almost \$74,000; by 1996, the average cost was over \$82,000.⁷

There was a housing revival of sorts in the cities at this time, too, as new condominium projects in downtown areas multiplied. Introduced in the 1970s as an alternative housing option, they were almost exclusively an urban phenomenon and by 1991, almost 90% of all condominiums were located in the country's 25 largest cities, with Toronto and Vancouver leading the way.⁸ This development reflected the changing lifestyle of many Canadians and many larger urban centres made use of empty commercial space and turned it into residential units on prime downtown land. However, the gradual decline of

the inner city had also created an abundance of lower quality housing in prime city locations.

Refurbishing existing housing also served to revitalize the inner cities in a process called gentrification. This remains a common procedure whereby more upscale housing is created in an area where lower-cost housing once predominated. Although it helps to energize downtown cores and provides an alternative to suburban living, the unfortunate side effect can be the displacement of individuals on reduced incomes into more expensive housing, or no housing at all.

Homeownership in the 1990s

Like many things, our homes have changed over the century not only in appearance, but in location and tenure as well. In 1901, a majority of Canadians lived in large families in the countryside and owned the houses they lived in. The majority of homeowners were mortgage-free.

Families have changed, and so have their housing choices. More than 80% of husband-wife families own their homes, and just over half of them have a mortgage. In contrast, only 54% of common-law families own their homes, and three-quarters of them have a mortgage. Even fewer lone-parent families (45%) are homeowners, with 56% having to pay a mortgage. Almost one-quarter of married and common-law homeowner families spend more than 30% of their income on housing; more than half of lone-parent families are in the same situation.⁹

7. The values refer to owner-occupied private non-farm dwellings. Values are in constant dollars.

8. Lo, O. 1996. "Condominium Living," *Canadian Social Trends*, Summer 1996.

9. Spending 30% of the household income on shelter costs is often used as a benchmark for affordability.

Summary

Canada at the turn of the century was predominantly rural. Canadians lived in the distinctive homes of the Quebec countryside, in Prairie "soddies", in the wooden houses of the Maritimes or in the stone-built farmhouses of Ontario. The way to get to the neighbour's house was on the back of a horse, and going to another town meant taking the train.

Today we live in the apartments of the cities and the single detached houses of the suburbs. Although we are undoubtedly an urban nation, middle-aged and older Canadians have started to move to smaller towns and cities just within commuting range of the "big" city in order to enjoy "country" living.¹⁰ Even though this change in lifestyle may represent a longing for the "good old days", when we go down the street to the store, we'll probably still use our cars.

10. Foot, D. K. and D. Stoffman. 1998. *Boom, bust & echo 2000: profiting from the demographic shift in the new millennium*. 48-49.

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Patterns of religious attendance

by Warren Clark

Many people attend religious services and participate in religious organizations because it is important to their well-being. Churches, synagogues, mosques and temples provide spiritual sustenance as well as informal support networks. Research also shows that participation in religious organizations is associated with involvement in volunteer organizations, sports, service clubs and social groups, which help people to establish social networks and friendships.

Over the last 50 years in Canada, the percentage of the adult population attending religious services has declined dramatically. In 1946, a Gallup poll reported that 67% of adults attended religious services during a typical week; in 1998, only 22% did. Because participation in religious services and organizations encourages the development of shared community activities and values, some observers are concerned about the effect of declining religious attendance on social cohesion in the general society. This article uses the General Social Survey (GSS) to identify some of the factors that may contribute to regular attendance at religious services.

Regular religious attendance lower for all ages

Between 1988 and 1998, regular attendance at religious services (attending at least once a month) has fallen from 41% to 34% of Canadians aged 15 and over. According to the GSS, the religious activity of Canadian adults declines between their mid-teens and their mid- to late twenties.

CST What you should know about this study

Almost every year since 1985, Statistics Canada's General Social Survey (GSS) has interviewed adults aged 15 and over living in private households in the 10 provinces; in 1998, about 10,700 respondents were interviewed. In addition to demographic and socio-economic data, the GSS has collected information about the frequency of attendance at religious services (excluding special occasions such as weddings, funerals, baptisms). Possible responses were: at least once a week, less than weekly but at least once a month, a few times a year, at least once a year, not at all. The term "regular attendance" is used throughout this article to refer to attendance of at least once a month.

This is a time when young adults are first establishing their independence from their parents, and then establishing families of their own. Regular attendance rates begin to rise again among adults in their early thirties to reach their highest level among seniors aged 75 and older.

However, over the last 10 years, attendance rates have fallen for adults in all age cohorts. The most stark example is provided by youths. The regular attendance rate for people aged 15 to 24 was 34% in 1988. By 1998, when they were 25 to 34 years old, the rate had dropped 10 percentage points to 24%. Among older age groups, the drop has been negligible. For example, 55- to 64-year-olds in 1988, who became 65 to 74 in 1998, saw regular attendance rates drop by only one percentage point. At the same time, though, this cohort also saw non-attendance rates increase from 20% to 26%, indicating that infrequent attenders are becoming non-attenders.

Marriage and children make a difference

The many religious traditions in Canada are generally linked with values and attitudes that support marriage and parenthood. Research shows that there is a positive association between religious participation and traditional attitudes about family formation.¹ Strong religious values formed in childhood may encourage early family formation and participation in religious organizations later in life. This may be reflected in a regular religious service attendance rate for young marrieds aged 15 to 24 that is nearly double that for singles the same age (44% compared with 26%).

Religious attendance is also higher for couples with children. Married couples aged 25 to 44 with young children were more likely to attend

1. Clark, W. 1998. "Religious Observance, Marriage and Family," *Canadian Social Trends*, Autumn 1998.

	1988	%	1998
Total aged 15 and over	41		34
15-24	34		26
25-34	32		24
35-44	39		29
45-54	47		34
55-64	52		43
65-74	57		51
75 or older	60		56

1. Attended at least once a month in the year preceding the survey.

Source: Statistics Canada, General Social Surveys.

	15-24	25-44	Age 45-64	65 and over
			%	
Total	26	27	37	53
Men	25	24	32	49
Women	27	30	43	56
Single	27	22	27	60
Lone parents	--	23	34	--
Common-law	11	10	14	--
Married	44	33	41	53
Men	--	31	37	53
Women	49	34	46	54
No children	--	27	40	53
Children under age 5	--	34	--	--
Children aged 5-14	--	35	47	--
Children aged 15 and over	--	24	41	54
Separated, divorced	--	22	25	40
Men	--	12	14	--
Women	--	28	33	50
Widowed	--	--	48	54
Men	--	--	--	41
Living alone	--	--	--	38
Women	--	--	--	57
Living alone	--	--	--	57

-- Sample size too small to produce reliable estimates.

1. Attended at least once a month in the year preceding the survey.

Source: Statistics Canada, General Social Survey, 1998.

religious services regularly (33% in 1998) than were childless couples the same age (27%). At all ages, adults living in common-law relationships were the least likely to be regular attenders.

Divorced and separated people also have lower attendance rates than married adults. The difference between rates for divorced or separated men and for married men is much larger than that for their female counterparts. This suggests that marriage breakdown has greater consequences for men's religious participation. Women are more likely to have custody of children and may want to ensure their continued religious instruction; women may also have stronger social ties with religious organizations than men. For some, it may be difficult to return to their place of worship, due to strong disapproval of divorce in some religions.

Male attendance also drops upon the death of their spouse. Senior men and women living with their spouse had nearly equal attendance rates (53% for men, 54% for women). Senior widowers living alone, however, were substantially less likely to attend, at only 38%. In contrast, rates for senior widows living alone were almost the same as those for married women aged 65 and over.

Lone parents have somewhat lower regular attendance overall than married couples with children. But their attendance patterns are similar to those of other adults with the same marital status. About half of widowed lone parents attended religious services regularly, similar to the attendance rate for all widows. Meanwhile, 26% of never-married and 27% of separated or divorced lone parents were regular attenders, rates similar to those of single and other separated/divorced adults.

Canadian-born less likely to attend than immigrants

In 1998, Canadian-born adults had lower rates of regular attendance at

religious services (31%) than people who had immigrated to Canada (43%). At the same time, immigrants were almost as likely to be non-attenders (35% versus 38%). This apparent paradox may reflect the diversity of immigrants with different religious traditions. For example, about half the Asian immigrants entering Canada between 1994 and 1998 attended religious services regularly, compared with about one in five of European immigrants arriving in the same period.

Regular attenders more common in rural and small town Canada

Rural and small town Canadians² have traditionally attended religious services more frequently than people living in big cities. In 1998, about two in five (39%) adults in rural areas and small towns attended services regularly, compared with about one in three (32%) adults living in the three largest census metropolitan areas (CMAs) of Toronto, Montréal and Vancouver.

Higher attendance in rural areas and small towns may reflect their populations, which tend to be older and are more likely to be married or widowed than urban populations. In smaller communities, religious organizations are a significant contributor to local social and cultural life, whereas large cities offer numerous other cultural and social services.

Nevertheless, in recent years, regular attendance rates have been down everywhere in Canada. The change has been greatest in large towns of 20,000 to 49,999 inhabitants, where regular religious attendance rates are now nearly equal to those in the big cities. On the other hand, the significant drop observed in rural and small town Canada may be due in part to



Regular religious attendance rates¹ have stabilized in the largest CMAs² and small towns and rural areas

	1986	1991	1998
		%	
Canada	43	35	34
Large CMAs			
(Toronto, Montréal, Vancouver)	35	31	32
Mid-sized CMAs ³	40	34	30
CAs ⁴ and CMAs 50,000-249,999 ⁵	47	36	36
CAs 20,000-49,999	48	35	32
CAs 10,000 to 19,999 and rural areas	50	40	39

1. Attended at least once a month in the year preceding the survey.

2. Census metropolitan area.

3. Includes Ottawa-Hull, Edmonton, Calgary, Quebec City, Winnipeg, Hamilton, London, Kitchener, St. Catharines-Niagara, Halifax, Victoria, Windsor, Oshawa.

4. Census agglomeration.

5. Includes Saskatoon, Regina, St. John's, Sudbury, Chicoutimi-Jonquière, Sherbrooke, Trois-Rivières, Saint John, Thunder Bay and smaller cities.

Source: Statistics Canada, General Social Surveys.



Provincial variations

Regular attendance at religious services varies substantially across the country. In every province, rates have declined since 1986, but the biggest drop has been in Quebec, almost 20 percentage points. Rates in British Columbia, which have historically been the lowest, have not changed much over the years, but they are now rivaled by those of Quebec and Alberta.

	1986	1998
	% of adults aged 15 and over	
Canada	43	34
Newfoundland	58	47
Prince Edward Island	65	52
Nova Scotia	49	41
New Brunswick	63	50
Quebec	48	29
Ontario	42	36
Manitoba	42	37
Saskatchewan	55	39
Alberta	34	29
British Columbia	26	27

Source: Statistics Canada, General Social Surveys.

2. Living in census agglomerations (CAs) with population between 10,000 and 19,999 or living in rural areas outside census metropolitan areas (CMAs) and CAs.

Characteristic of respondent	Odds ratio
Sex	
Men	1.0
Women	0.9*
Age of respondent	
Age 15-24	1.0
Age 25-34	1.0*
Age 35-44	1.2*
Age 45-54	1.8
Age 55-64	2.3
Age 65-74	2.5
Age 75 and over	3.3
Marital status and age of children	
Single (never married)	1.0*
Common-law	1.0*
Married with no children	1.0
Married with children less than age 5	1.0*
Married with children aged 5-14	1.4
Married with children aged 15 and over	1.2*
Widowed	0.9*
Separated, divorced	1.1*
Religious attendance	
Does not attend religious services	1.0
Infrequent attendance	1.3
Regular attendance	2.0
Size of community	
Large CMAs (Toronto, Montréal, Vancouver)	1.0
Mid-sized CMAs	0.9*
CMAs, CAs 50,000-249,999	1.2
CAs 20,000-49,999	1.5
CAs 10,000 to 19,999 and rural areas	1.7
Duration of residence in Canada	
Born in Canada	1.0
Immigrated to Canada in last 5 years	0.4
Immigrated 5-9 years ago	0.6
Immigrated 10 or more years ago	0.7

* No statistically significant difference from benchmark group.

Note: This table presents the odds that a respondent has a very strong feeling of belonging to their local community, relative to the odds that a benchmark group has the same feeling (odds ratio) when all other variables in the analysis are held constant. The benchmark group is shown in boldface for each characteristic.

Source: Statistics Canada, General Social Survey, 1998.

the changing population profile. Fast-growing small communities on the edge of the commuting zones of larger urban centres have become retirement destinations for urbanites seeking recreation and perhaps a quieter and less expensive lifestyle.³ Those who migrate from the big cities may bring with them their habit of attending religious services somewhat less frequently.

Canada's three largest cities had the smallest decline in regular religious attendance rates. This may in part be due to the influx of immigrants, who are more likely to attend religious services than Canadian-born adults.⁴

Religious people feel a stronger connection to their community

Recent research supports the importance of a sense of belonging to people's well-being. The 1999 Conference Board of Canada study, *Healthy communities*, makes a clear causal connection between health and belonging: people who feel they belong in a community and have personal support networks live healthier lives. The Trillium Foundation asserts that well-functioning communities respond to a hunger for belonging and connection, and sees caring communities being created by promoting participation that encourages face-to-face contact.⁵ Participation in religious organizations is one form of community participation and one way of enhancing social cohesion.

3. Mendelson, R. and R. D. Bollman. 1998. "Rural and Small Town Population is Growing in the 1990s," *Rural and Small Town Canada Analysis Bulletin*, Statistics Canada Catalogue no. 21-006-XIE. 1,1.

4. In 1996, 42% of the population of the Toronto CMA, 35% of the Vancouver CMA and 18% of the Montréal CMA were immigrants. *The Daily*, Statistics Canada Catalogue no. 11-001E. November 4, 1997.

5. Jenson, J. 1998 *Mapping Social Cohesion: The State of Canadian Research*, CPRN Study No. F|03. 1998. 19.

Indeed, analysis of the GSS data shows that people who attended religious services on a regular basis were more likely to feel a very strong connection to their community⁶ and had a greater number of friends and relatives to whom they felt close. Over one in four regular attenders (29%) in 1998 had this sense of belonging, compared with only one in seven adults (15%) who did not attend services at all. After accounting for other factors, the odds of feeling a strong connection to the community were about two times higher for regular attenders than for non-attenders.⁷ Other important contributors to feelings of connectedness were age, size of community and living arrangements. Seniors were much more likely to feel strongly about their community, perhaps because they enjoyed long tenure in one neighbourhood where they had developed strong contacts with their neighbours over the years. People living in smaller communities also were more likely to have a feeling of belonging, as were married couples with school-age children.

Furthermore, people who attended religious services regularly were somewhat more likely than non-attenders to provide care for others. This included tasks like childcare, grocery shopping, running errands or chauffeuring, as well as personal care for someone experiencing temporarily difficult times or a long-term health problem. The odds of caregiving were 1.3 times higher for regular attenders than non-attenders, after accounting for other socio-demographic factors.⁸ Other key predictors of caregiving were gender, living arrangements and education. Nevertheless, it seems that regular attendance at religious services is associated with stronger, caring communities.

Summary

Regular attendance at religious services has been falling over the last

10 years among Canadians of all ages. However, the family life cycle significantly influences attendance. Regular attendance rates are lowest for people in their mid- to late 20s; after that, rates begin to climb as people marry and have children. In fact, religious attendance seems to be most attractive to married adults. And while immigrants also have higher overall regular attendance rates than Canadian-born adults, the rates vary considerably depending on country of origin.

Analysis shows that people who regularly attend religious services are twice as likely to have a very strong feeling of belonging to their community, compared with adults who do not attend at all. This sense of connectedness may contribute to creation of stronger communities. But while regular attendance rates have traditionally been lowest in large urban areas, rates in smaller cities and towns have fallen so fast over the last 10 years that they are now among the lowest in the country.

6. Respondents rated their sense of belonging to their local community from very strong to very weak.
7. These other factors were age, sex, living arrangements, presence of children and age of children, marital status, size of place of residence, and education.
8. Other factors included age, sex, education, income, size of community, living arrangements, presence and age of children.



Warren Clark is a senior analyst with Housing, Family and Social Statistics Division, Statistics Canada.

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Family violence

According to the 1999 General Social Survey on Victimization, 1.2 million women and men have experienced spousal violence during the past 5 years. Survey results show that: women are more likely to experience more frequent and severe violence, to seek medical attention, report to the police, and fear for their lives because of violence. Women are also three times more likely than men to be killed by a spouse. Those at greatest risk of spousal violence are younger women and men, those living in a common-law relationship, those whose partners are emotionally abusive, and those who live with a frequent heavy drinker. Children who witnessed spousal violence were twice as likely to see their mothers victimized than their fathers, and in 53% of these cases, the mother had been physically injured and feared for her life. While only 1% of seniors reported incidents of physical abuse by a spouse, adult child or caregiver, 7% reported emotional or financial abuse (mainly by a spouse).

Note: Violence is defined in this survey as experiences of physical or sexual assault that are consistent with legal definitions of these offences and that could, if reported, be acted upon by police.

Family violence in Canada:

A statistical profile 2000
(Internet: 85-224-XIE)



Human activity and the environment

Human activity impacts on Canada's environment in many ways.

In an effort to reduce negative effects, government spending on pollution abatement and control totalled \$5.4 billion, or 0.7% of GDP, in 1996; businesses invested an additional \$4.9 billion. In the 1980s, government spending on pollution control represented 2.3% to 2.9% of total government expenditures. Another priority is water quality, especially as the population receiving wastewater treatment has increased since 1983; in 1996, an estimated 1.3 million people (6% of all Canadians served by sewers) lived in municipalities whose wastewater received no treatment before discharge. Energy is also a major concern. Per-capita energy use has increased 100% over the past 40 years, although energy consumption rates are improving. From 1961 to 1997, the energy used to produce one dollar of economic output declined from 15.0 to 12.4 megajoules. Use of natural gas increased from 13% to 35% of all energy used in the period 1958 to 1997.

Human activity and the environment 2000

Catalogue 11-509-XPE
(includes a CD-ROM)



Food consumption habits "are a-changin'"

The types of food that Canadians ate changed over the 1990s. Chicken consumed per person increased by 18%, from 28 to 33 kg, reflecting an increased selection of convenient fresh and

frozen poultry products aimed at time-conscious shoppers. Red meat consumption in 1999 stood at 62 kg per person, down from 64 kg in 1990. Although people drank less milk, down from 95 to less than 88 litres per person, consumption of cheese increased from 11 to 12 kg. Similarly, cream consumption rose from 5 to 6 litres. The increasingly diverse tastes of Canadians can be seen in the rapid growth in consumption of rice (over 60%) and cereal products (23%) over the 1990s. Products such as rice cakes and noodles, pita bread, tortillas, cereal-based snacks and bagels contributed to the growth of these foods.

Food consumption in Canada, part I

Catalogue 32-229-XPB
(Internet: 32-229-XIB)



Atlantic Canada cruising along

The number of cruise ships dropping anchor at ports-of-call in Atlantic Canada has grown dramatically in recent years. Between 1998 and 1999, the number of international passenger ship arrivals recorded a 74% increase. The major destination was Halifax, accounting for 64% of all arrivals by cruise passengers in the Maritime provinces. With nearly 72,000 visitors landing there in 1999, Halifax was the second busiest cruise stop in Canada. (The busiest is Vancouver, with approximately 400,000 voyagers). It is estimated that the number of cruise ships making

landfall in Halifax will more than double between 1998 and the end of 2000 (102 versus 53). More than 90% of the foreign cruise passengers arriving in Halifax are Americans.

Travel-log, Summer 2000

Catalogue 87-003-XPB
(Internet: 87-003-XIE)



Transit ridership improves but future uncertain

Transit ridership rebounded to 1.43 billion in 1999, after reaching a decade low of 1.37 billion rides in 1996. Revenues for transit authorities grew 4.5% per year between 1995 and 1999, or about three times the rate of increase in the number of passengers. However, the longer-term trend is unclear: in 1996, only 1 in 10 people traveled to work in urban areas by public transit, compared with 8 in 10 who used a personal vehicle. Factors such as urban sprawl, the migration of businesses to city fringes, perceived increased transit fare costs, and the greater convenience of personal vehicles may be having an impact on transit usage.

Factors affecting urban transit ridership

Catalogue 53F0003-XIE

SOCIAL INDICATORS

	1991	1992	1993	1994	1995	1996	1997	1998	1999
POPULATION									
<i>Total population (July 1)</i>	28,030,864	28,376,550	28,703,142	29,035,981	29,353,854	29,671,892	29,987,214	30,246,891	30,491,294
Age 0-17	6,937,359	7,025,902	7,082,130	7,129,781	7,165,631	7,205,638	7,209,093	7,183,653	7,146,247
Age 18-64	17,876,300	18,054,826	18,250,340	18,466,074	18,676,227	18,884,263	19,119,660	19,333,519	19,554,427
Age 65 and over	3,217,205	3,295,822	3,370,672	3,440,126	3,511,996	3,581,991	3,658,461	3,729,719	3,790,620
<i>Population rates (per 1,000)</i>									
Total growth	11.4	12.9	11.1	11.2	10.8	10.4	9.8	7.8	8.5
Birth	14.4	14.1	13.5	13.3	12.9	12.3	11.6	11.4	11.1
Death	7.0	6.9	7.1	7.1	7.2	7.2	7.2	7.3	7.4
Natural increase	7.4	7.1	6.4	6.1	5.7	5.2	4.4	4.1	3.7
Immigration	8.2	8.9	8.9	7.7	7.2	7.6	7.2	5.8	6.2
Emigration	1.7	1.6	1.6	1.6	1.6	1.6	1.8	1.8	1.8
Interprovincial migration	11.3	10.9	9.9	9.9	9.8	9.6	9.7	10.8	10.9
Marriage	6.1	5.8	5.5	5.5	5.5	5.3	5.1	--	--
<i>Percent growth in largest census metropolitan areas (to July 1)</i>									
Toronto	1.7	1.4	2.0	2.0	1.9	2.2	1.9	2.1	--
Montréal	0.6	0.8	0.7	0.6	0.5	0.4	0.4	0.4	--
Vancouver	2.7	2.7	3.2	3.2	3.3	2.9	1.6	0.9	--
HEALTH									
Total fertility per woman	1.70	1.69	1.66	1.66	1.64	1.59	1.55	--	--
Teenage pregnancies	45,553	46,221	46,376	47,376	45,044	--	--	--	--
Rate per 1,000 women aged 10-19	24.3	24.5	24.3	24.6	23.1	--	--	--	--
% of low birthweight babies	5.6	5.5	5.7	5.8	5.9	5.8	5.8	--	--
Infant mortality (per 1,000 live births)	6.4	6.1	6.3	6.3	6.1	5.6	5.5	--	--
<i>Life expectancy (years)</i>									
Men	74.6	74.9	74.9	75.1	75.4	75.7	75.8	--	--
Women	80.9	81.2	81.0	81.1	81.3	81.4	81.4	--	--
<i>Leading causes of death for men (per 100,000 persons)*</i>									
Cancer	247.5	244.0	241.0	238.9	234.7	236.6	229.7	--	--
Lung	78.8	77.3	77.3	74.7	72.1	72.9	69.8	--	--
Colorectal	25.1	25.9	24.5	24.7	24.7	24.4	23.5	--	--
Prostate	31.2	30.9	30.8	30.3	30.3	29.2	28.6	--	--
Heart diseases	263.7	256.9	256.0	244.9	238.7	239.9	230.8	--	--
Cerebrovascular diseases	55.8	54.4	56.2	54.3	53.5	52.9	52.8	--	--
External causes**	68.7	66.9	67.4	64.9	65.0	63.0	--	--	--
<i>Leading causes of death for women (per 100,000 persons)*</i>									
Cancer	153.7	152.7	154.0	153.9	150.3	155.0	148.5	--	--
Lung	29.6	29.6	31.6	31.7	31.1	33.6	32.3	--	--
Colorectal	16.8	16.6	16.5	15.9	16.0	15	15.2	--	--
Breast	30.1	30.4	29.2	29.8	28.4	28.9	27.4	--	--
Heart diseases	147.6	140.8	140.5	137.9	134.8	134.7	129.7	--	--
Cerebrovascular diseases	46.3	46.1	47.3	45.3	44.0	44.1	43.9	--	--
External causes**	26.5	25.7	26.6	25.0	25.4	--	--	--	--

-- Data not available

* Age-standardized to 1991 population

** Includes events such as suicide, poisoning and motor vehicle and other types of accidents.

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Lesson plan for "100 years of..." articles

Objective

- ☐ To explore the different ways in which the lives of Canadians have changed during the course of the 20th century.

Method

Students select one of the following topics related to the special "100 years of..." articles that have appeared in the last four issues of *CST*:

1. Conduct a classroom discussion about the social and economic impact that women's increased involvement in the paid labour force participation has had. How has this affected the family and family formation?
2. Apart from Aboriginal people, all Canadians are descended from or are themselves immigrants. What is the history of your family's immigration to Canada? Talk to your parents, grandparents or other relatives about their experiences. Gather these stories along with photos, documents or other items together into a scrapbook or website.
3. At the beginning of the century most households owned few possessions; today, households generally own many more possessions. List the things your family owns that you think are essential, and compare it with the essentials of a century ago.
4. In the early 1900s, children were likely to leave school before finishing high school. Nowadays, it seems to be mandatory to have a postsecondary education in order to get a job. What kinds of skills were necessary 80 or 100 years ago to make a living?
5. Compare lifestyles in the city and the country now; compare them to 100 years ago. Issues include transportation, medical care, and jobs.
6. Ask your grandparents about illnesses they may have had as children, and the treatment they received for it. Compare their experience of childhood illness with yours.

Using other resources

- ☐ A few good sources of information include: Statistics Canada's *Historical Statistics of Canada*; Statistics Canada's *Canada Year Book*; public and school libraries.
- ☐ For lesson plans for Health and Physical Education courses, check out the Statistics Canada web-site, <http://www.statcan.ca> under Education Resources. Select Lesson plans.

Share your ideas!

Do you have lessons using *CST* that you would like to share with other educators? Send us your ideas and we will ship you lessons using *CST* received from other educators. For further information, contact Joel Yan, Dissemination Division, Statistics Canada, Ottawa K1A 0T6, 1 800 465-1222; fax (613) 951-4513 or Internet e-mail: yanjoel@statcan.ca.

Educators

You may photocopy "Educators' Notebook" and any item or article in *Canadian Social Trends* for use in your classroom.

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Canadians in the spotlight



Plugged into the Internet

by Paul Dickenson and Jonathan Ellison

How many Canadians have a computer at home? How many use the Internet? These are the questions that the new Canadian Social Trends magazine is asking. The magazine is a quarterly publication that provides a comprehensive overview of social trends in Canada. It is a must-read for anyone interested in social issues and trends in Canada.

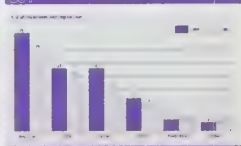
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Statistics Canada first conducted the household telephone survey in 1995. It was a landmark study that provided the first comprehensive overview of social trends in Canada. The survey was conducted by Statistics Canada and was the first of its kind.

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Income levels: Households with a higher income are more likely to use the Internet. The survey found that households with a higher income are more likely to use the Internet than households with a lower income.

Internet use is growing fastest at home



Use of e-mail and general browsing on the most common



Source: Statistics Canada, 1995. The survey was conducted by Statistics Canada and was the first of its kind. The survey found that households with a computer at home are more likely to use the Internet than households without a computer at home.

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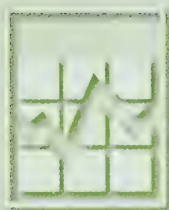
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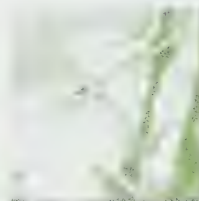
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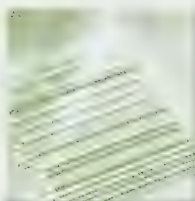
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Getting ready for the 2001 Census

by John Flanders

When Jean Talon set out to conduct the first census for the colony of New France more than 300 years ago, he did it the best way he knew how. He went knocking on doors.

Talon, an energetic and imaginative man, arrived in the new colony in 1665 on a mission from King Louis XIV. Louis wanted to stimulate employment, trade and industry. As intendant of justice, police and finance, Talon began his administrative appointment by taking stock. He wanted to know exactly how many people had settled in New France, which towns they lived in, how many young men and women there were of marriageable age, what trades were practised and so on. Over the winter of 1665-66, he initiated a door-to-door enumeration of the colony's inhabitants.



Talon counted 3,215 people of European descent — 2,034 men and 1,181 women. Among these were three notaries, three schoolmasters, three locksmiths, four bailiffs, five surgeons, five bakers, 27 joiners and 36 carpenters. The colony consisted of three major settlements, inhabited by 528 families. Québec had a population of more than 2,100 people, Montréal had 635 and Trois-Rivières had 455.

Then Talon put his statistics to work. His figures showed that men outnumbered women nearly two to one in the male-dominated fur-trading and missionary outpost. So he arranged for "strong and healthy" single women aged 15 to 30 to come

from France. From 1665 to 1673, more than 900 "filles du roi" arrived at Québec. Talon imposed penalties on bachelors and rewarded early marriage and large families.

Canada had thus become the first country in the modern world to use a census as a source of economic and social information. Today, on the eve of the 19th national census scheduled for May 15, 2001, Talon would likely be thunderstruck by the extent to which his rudimentary efforts at profiling the population have grown.

Census data will help determine how public services such as transportation, fire and police protection, housing, day-care and health care will be carried out in your neighbourhood

Canadians will see some important changes when they sit down to fill in their census questionnaires on May 15, 2001. The 2001 short questionnaire contains seven questions, the same number as in the 1996 Census, but two fewer than in 1991. However, the long questionnaire contains three questions that were not asked in 1996.

Religion: Information on religion measures cultural diversity, and is used in combination with other characteristics to trace fundamental changes in Canadian society. For example, religious groups use data on religion to measure potential strengths and trends of various denominations. School boards use the data for planning purposes.

The 2001 Census will contain an open-ended question on religion. Respondents can fill in the denomination or religion of their choice, with an option of checking a "no religion" response, or marking in other responses such as "atheist" or "agnostic". This allows respondents total freedom on the questionnaire to indicate what they feel best describes their beliefs, including writing down "no religion".

Birthplace of parents: There is growing interest in how children of immigrants are integrating into Canadian society, given the fact that an increasing number of immigrants are visible minorities. Data from this question will also be used to assess the labour market outcomes of "second generation Canadians" compared to those of other Canadian-born and foreign-born individuals.

Language of work: The information from this new question will help assess the use of mother tongue at work by official language minorities and the linguistic integration of non-official language minorities in the labour market.

In addition to the new questions, there are two changes to existing questions.

Home language: The question has been expanded to include all languages regularly spoken at home, not just the language spoken most often. This question will provide more detail on language retention and language transfer.

Same-sex partners: In light of growing legal and societal recognition of same-sex unions, many organizations and governments have expressed a need for this information. For example, some provincial and municipal legislation, as well as some private sector insurance plans, now extend rights and benefits to same-sex partners. The "relationship to Person 1" question and the "common-law status" question now include categories for "common-law partner (opposite-sex) of Person 1" and "common-law partner (same-sex) of Person 1."

Ethnic origin: An introduction has been added to the question to help clarify the intent. "Canadian" is now listed as the first rather than the fifth example out of 25 examples of possible ethnic origins.

during the next few years. Parks, municipal boundaries and future economic development are all planned using the information provided on census forms.

Census a valuable planning tool

During the past 350 years, the census, like the country, has changed dramatically. But the goal remains the same — a statistical portrait of Canada's people. The census provides detailed, accurate and comparable data on the social, economic and cultural characteristics of the population. These data are used to help run the country at all levels because they are the only source of data on conditions in small geographic areas, and on very specific or unique groups of people. As such,

they are essential to the welfare and efficiency of people's neighbourhoods, municipalities and provinces.

A special staff of 45,000 is poised to carry out a meticulously refined plan. Instead of canvassing 3,200 households, as did Jean Talon, the 2001 Census of Population will canvass about 12 million households and a total population estimated at more than 30 million. The Census of Agriculture, which will be conducted simultaneously, will enumerate some 276,000 agricultural operations.

The 10-year, or decennial, census has been conducted every 10 years since 1871 as a constitutional requirement under the *Constitution Act* and is used to determine representation in the House of Commons. The five-year

census, mandated by the *Statistics Act*, has been conducted nationally since 1956. It was introduced to monitor the rapid economic growth and urbanization during the post-war years and it remains the backbone of many social programs, such as the population estimates program, which helps determine federal-provincial transfer payments.

Four out of five households get a short questionnaire

In 2001, 80% of Canadian households will receive a short questionnaire which contains seven questions, and requires about 10 minutes to complete. The remaining 20% of households will receive the long form, which will take about 30 to 35 minutes to complete. The long

CST Milestones in the history of the census in Canada

1605: Roman Catholic missionaries in New France take the colony's first population count at Port Royal, in what is today Nova Scotia.

1665 to 1739: During the French regime, 36 censuses are conducted in New France, the last in 1739. Jean Talon conducts the first systematic census of the colony. Talon's census records age, occupation, marital status, and relationship to the head of the family. It also measures the wealth of industry and agriculture, the value of local timber and mineral resources, and the number of domestic animals, seigneuries, government buildings and churches. Over the years, new questions are added on topics such as buildings and dwellings, agricultural and industrial output, as well as armaments.

1765 to 1790: Under the British administration, censuses are held in 1765, 1784 and 1790. As the need arises, questions are added on livestock, crops, buildings, churches, gristmills and firearms, as well as questions on race, religion and ethnic origin.

1847: Statistics-gathering is legislated in the United Provinces of Upper and Lower Canada through the *Statistics Act*. The legislation calls for a decennial census, which is first taken in 1851.

1851: Nova Scotia, New Brunswick and Prince Edward Island — then separate colonies — also take censuses. This year marks the start of regular decennial enumerations of the population of what is to become the Dominion of Canada.

1867: The *British North America Act* lists "The Census and Statistics" as falling under the exclusive jurisdiction of the federal government. The *Act* also calls for "a general census of the population of Canada" to be taken in 1871 and every tenth year thereafter.

1870: The first census taken under Dominion auspices is conducted in Manitoba to divide the province into its four original electoral districts.

1871: Canada's Census is the most comprehensive ever conducted in North America. The nine schedules and 211 questions are designed to be the instrument of collecting data nationwide and are the basis of Canada's present-day statistical system. The 1871 Census count begins two traditions still with the census today. First, the questionnaire is available in English and French; secondly, information on the ancestral origins of all Canadians, including Aboriginal people, is recorded.

1881: All census takers are required to take an oath of secrecy, which is still required today. The census is also extended to include British Columbia, Manitoba and Prince Edward Island.

1896: For the first time, the Census of Agriculture and Census of Population are conducted separately.

1905: The census bureau becomes a permanent government agency.

1906: The first mid-decade censuses of agriculture and of population for the Prairie provinces take place.

1911: The census date is changed from April to June to avoid bad weather and road conditions, and the difficulty of determining crop acreage in early spring.

1918: The first *Statistics Act* creates the Dominion Bureau of Statistics and provides for the Censuses of Population and of Agriculture, for the whole of Canada, in 1921 and every 10 years thereafter.

1921: The population questions no longer include those on "insanity and idiocy" and fertility.

1931: Questions are added to gauge the extent and severity of unemployment, and to analyze its causes.

1956: The first five-year national census is conducted. It is introduced to monitor the rapid economic growth and urbanization that took place during the postwar years.

1971: The majority of respondents now complete the census questionnaire themselves, a process called self-enumeration. Under the new *Statistics Act*, it becomes a statutory requirement to hold censuses of population and of agriculture every five years.

1986: The Census of Population contains a question on disability, which is also used to establish a sample of respondents for the first post-censal survey on activity limitation. Also for the first time, the Census of Agriculture asks a question on computer use for farm management.

1991: For the first time, the census asks a question on common-law relationships.

1996: A question on unpaid work is included in the census.

2001: The definition of "common-law" is expanded to include both opposite-sex and same-sex partners. Also, the Census of Agriculture asks about production of certified organic products.

questionnaire contains the seven questions from the short form as well as 52 additional questions on topics such as ethnicity, mobility, income and employment.

Sampling by distributing the long questionnaire to only one-fifth of households provides detailed data on the entire population without imposing an unreasonable burden on all respondents.

No new questions were added to the short questionnaire for the 2001 Census. However, there are three new questions on the long questionnaire that were not asked in 1996, concerning religion, birthplace of parents and language of work. There are also important changes to some existing questions, including one that will collect information on same-sex partners.

While for most Canadians, the census will be collected in the same way as in 1996, Statistics Canada will conduct an Internet test where people living in two locations (London, Ont., and Crowfoot, Alta.) will have the option of answering the questionnaires using the Internet or on paper. This test will be in preparation for the 2006 Census, which will offer all respondents this choice.

The first data from the 2001 Census, which will be population counts, are scheduled for release in April 2002. Successive releases will run from July 2002 through May 2003. The Census of Agriculture releases its first data in May 2002.

Technology will be the buzzword as well for disseminating data from the census. Statistics Canada's web site will be put to greater use to provide the public with the data they require.

Census of agriculture: basic inventory of farming

The first Censuses of Agriculture were taken in the late 19th and early 20th century in the Prairies when farming was a common way of life. Even in

1931, 1 in 3 Canadians lived on a farm compared with 1 in 30 in 1996. The Census of Agriculture is the basic inventory of Canadian agriculture taken every five years. It asks 184 questions on a variety of topics, including land use, crops, livestock, paid agricultural labour, and land management practices.

This census identifies trends and issues within the agricultural community, and has become the backbone of Canada's agricultural statistics program. It provides comprehensive information on the industry, from the township and rural municipality level to the national level. The questions are designed to shed light on new developments in agriculture; to build a picture of farming over time; to provide information on the human side of agriculture, such as the age and sex of operators; and to understand the business of farming, such as the use of computers.

Farm organizations, government departments, agriculture service providers and academics all use census data to understand and respond to changes in the industry. For example, some groups use Census of Agriculture data to help determine whether there are enough farms using the Internet for business to warrant the development of web sites to deliver information.

In 2001, the Census of Agriculture will ask farmers not just to indicate if they use a computer, but specifically what they use it for. In addition, for the first time they will be asked whether their operation produces any certified organic products for sale, and if so, what these products are.

Privacy and confidentiality: the law protects what you tell us

Each person living in Canada is required by law to provide the information requested in the census. That same law requires that Statistics Canada keeps all personal information

absolutely confidential. Only Statistics Canada employees who work with census data and have taken an oath of secrecy see the forms. Personal census information cannot be disclosed to anyone outside Statistics Canada.

Employees must follow specific instructions and procedures to ensure that confidentiality is maintained. One of the most important measures taken to ensure the confidentiality of information is that names, addresses and telephone numbers are not entered into the census database. Statistics Canada controls access to its premises to keep them secure, and there are no public communication lines connected to its database to avoid attacks from hackers. Only a small number of employees have access to completed questionnaires.

The *Statistics Act* contains penalties in the form of a fine of up to \$1,000 and/or a jail term of up to six months if an employee releases personal census information. In his annual report to Parliament in May 2000, Canada's privacy commissioner, Bruce Phillips, held Statistics Canada as a model for all government departments to follow in the management of information and protection of privacy.

He wrote: "Only Statistics Canada gathers comprehensive information about individuals, but does so only for statistical purposes, not to make decisions about them. And Statistics Canada's data are stringently protected; abusers can be fined or jailed."



John Flanders is senior media advisor with Communications Division, Statistics Canada.

Net shopping

by Jonathan Ellison and Warren Clark

The Internet has changed the way many people obtain information for making purchasing decisions. It has opened up the relationship between buyers and sellers, providing buyers with the potential to easily comparison-shop and to learn much more about products before buying.¹

Net shopping is much more than purchasing goods and services directly on-line. Businesses that allow consumers to view product information on-line are also part of the Internet shopping boom, providing potential customers with descriptions, pricing, availability and customer support and education, that can lead to sales.

Convenience is one of the many advantages of shopping on-line: shoppers can save time and effort by shopping from their home or office at Web sites from around the world at any hour of the day or night. On-line shopping opens up a global marketplace with a much wider range of goods and services.

There are also disadvantages to shopping on-line. As with catalogue shopping, shoppers are unable to feel, smell, taste or try products. And, as with any form of shopping, the on-line product description and photo may not live up to expectations. The shopping experience may boost frustration if the Internet connection suffers from long delays, as a result of slow modem speeds, heavy Internet traffic, system crashes or if shoppers must wade through numerous computer screens to find the product. Those new to shopping on-line may be unfamiliar with

search engines, shopping bots,² and other ways of finding products. On-line shopping also requires customers to remember account passwords for security purposes, something not required at the local mall. Like mail-order shopping, Internet shopping also has the problem of providing convenient delivery options and hassle-free product returns.

This article focuses on Internet shopping (purchases and window-shopping) done by Canadian households accessing the Internet from home. It quantifies how much on-line shopping is done, what is most popular among shoppers, and what types of households do the buying.

According to the Household Internet Use Survey, in 1999, 1.8 million households (that is, 15% of all Canadian households) shopped from home on the Internet.³ While about 800,000 households placed orders over the Internet (e-commerce households), slightly more (1 million) only window-shopped — they compared products, looked up product descriptions or specifications, checked product availability, and obtained price quotes — but did not follow through with an Internet order. Although these window-shoppers did not make purchases on-line,

This article is adapted from "Internet Shopping in Canada, 1999" by J. Ellison, L. Earl and S. Ogg, *Connectedness Series*, Statistics Canada Catalogue no. 56F0004, no. 3. 2001.

the information they received via the Internet may have influenced subsequent purchase decisions made off-line.

One of the concerns of Internet users has been the security of credit card information transmitted on the Net. For this reason, about one-quarter of households who placed orders made alternative arrangements (for example, they used a 1-800 number to complete the transaction).

While Internet shoppers still are a minority, Canadian households spent \$417 million in 1999 on Internet purchases from home, an average of \$517 per e-commerce household. People are concerned that many Canadian Internet purchases are made to American dot.com companies. According to the

1. Carroll, Jim and Rick Broadhead. 1999. *Canadian Internet Handbook 2000 — Lightbulbs to Yottabits*. Toronto: Stoddart Publishing Co. Limited. p. 106.
2. A bot (short for robot) is a software tool for digging through data. You give it directions and it brings back answers. Shopping bots facilitate comparison shopping by combing the Internet to find the lowest price for a product.
3. Includes those who placed orders for goods and services over the Internet as well as those who only window-shopped, looking for goods and services without purchasing.

CST What you should know about this study

The data for this article are from the Household Internet Use Survey (HIUS) conducted in November 1999. About 36,200 households responded to the survey. The HIUS collected information on household Internet use and business-to-household electronic commerce for households that typically accessed the Internet from home. Electronic commerce information was collected from November 1998 to November 1999. The HIUS collected information on the household as a whole from a designated member of the household who was asked about the level of on-line orders made by all members of the household in the last 12 months. This may lead to an underestimate of the extent of business to household e-commerce because the respondent may not have been aware of purchases or the value of purchases made by other household members.

Excluded is the value of the consumer orders placed over the Internet from locations other than the home. For example, an employee who purchases a book over the Internet from work is not included in the on-line shopping numbers presented here. This study also focuses on Internet users who typically access the Internet and excludes those who rarely access it. Orders placed over the telephone, on ATMs or through other electronic networks other than the Internet are not included.

The HIUS surveyed households in Canada of which some used the Internet during a typical month. Some of these Internet households accessed the Internet from home. Of households who used the Internet from home, some did not shop on the Internet, some placed orders for goods and services (e-commerce households) and others only window-shopped (window-shopper households). Households that did shop online from home are called "Internet shoppers" and include both the e-commerce and window-shopper households.

1999 Household Internet Use Survey (HIUS), about 60% of the dollar value of purchases from Canadian homes (\$250 million) were to Canadian businesses.⁴ This is miniscule compared with the \$559 billion personal expenditures on consumer goods and services in 1999.⁵ Although there are many more American Web sites, Canadians may choose Canadian sites when purchasing goods and services to avoid currency exchange rates, customs duties, and possibly, slower, more expensive delivery.

Internet households very concerned about security and privacy on the Internet

Convenience is one of the key reasons why people shop on the Net. However, consumers are still uneasy with making electronic transactions on the Internet

due to security concerns. Several recent events involving cyber theft of credit card numbers, denial of service attacks⁶ and theft of e-mail addresses may have contributed to the public's concerns of Internet security. Accumulation and selling of personal information about visitors to Web sites, often without consent or knowledge, have raised privacy concerns. To help consumers have an enjoyable on-line shopping experience, e-commerce companies have been storing shipping addresses, credit card numbers and shopping preferences to eliminate re-entry of this information when revisiting. Although these features improve the on-line experience, this information may not be stored very securely.

And home users of the Internet are concerned: nearly half (46%) were very concerned about the security of

purchasing over the Internet while about one-third (33%) were very concerned about Internet privacy. These issues may be why Internet window-shoppers and non-shoppers did not place orders on-line. Indeed, almost 53% of the Internet window-shoppers were very concerned about Internet security while only 33% of households who paid for orders over the Internet were that concerned.

To overcome these perceptions, Internet companies are adopting new encryption and authentication technologies, posting privacy and security policies and launching consumer reassurance campaigns. Governments are also acting with new legislation to ensure confidentiality of information.⁷ If consumer confidence is compromised by a breach in security or by the distribution of personal information, it is very difficult to win that trust back.

4. Statistics Canada. August 10, 2000. *The Daily* (<http://www.statcan.ca/Daily/English/000810/d000810a.htm>). Canadian businesses reported \$4.2 billion in orders over the Internet in 1999, according to the Information and Communications Technologies and Electronic Commerce Survey. About \$611 million of Internet sales were made by Canadian retailers. These sales figures included orders from other Canadian businesses, from businesses and consumers outside Canada, and from Canadian householders who access the Internet from home or other locations. Only Internet purchases of Canadian households accessing the Internet from the home are included in the \$417 million total, \$250 million of which was purchased from Canadian businesses, as reported in the Household Internet Use Survey.

5. *National income and expenditure accounts — Quarterly estimates*. Statistics Canada Catalogue no. 13-001-XPB, Vol. 48, no. 1 (1st quarter 2000). p. 19.

6. Attackers flood Web sites with so many requests that other Internet users find it difficult to communicate with that service. Service to other visitors is blocked because the server is so busy responding to the flood of requests from attackers that it has no time left to handle requests of legitimate customers.

Books, software, music and travel were the most popular on-line buys. Buying books (48%), software (36%), music (30%) and travel (29%) were the most popular purchases among households buying on the Net. These items can be easily purchased by providing a credit card number to the merchant over the Internet. Because their cost is usually small, a purchase of these items has few long-term financial implications on a household, unlike buying or leasing a car. Automotive product purchases ranked 7th in popularity at 21% among e-commerce households.

Travel and automotive products popular among window-shoppers

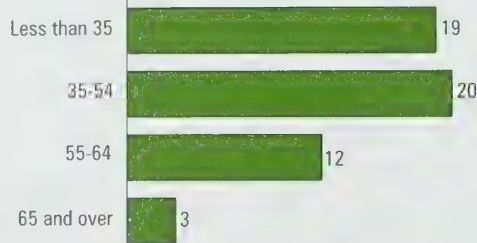
The Internet has become an essential research tool for consumers, enabling educated purchase decisions. Among window-shoppers automotive products (30%) were 2nd in popularity behind travel (32%). Purchasing or leasing a car requires considerable research, something that many Canadians have used the Web for. Yet most consumers still buy or lease cars off-line. This may be because many auto Web sites channel consumers back to a dealership to complete the sale. Consumers may still want to take a test drive and negotiate trade-in values, pricing and financing options face to face. The Internet

7. The *Personal Information Protection and Electronic Documents Act* that came into force on January 1, 2001 protects the personal information of individuals when it enters the commercial sphere in Canada. It will help to build trust in electronic commerce with the assurance of protection of digital information. In general, the *Act* requires organizations to obtain an individual's consent when they collect, use or disclose the individual's information. The individual has a right to access their personal information that is held by an organization and to have it corrected, if need be. Personal information can only be used for the purposes for which it was collected. Individuals should also be given the assurance that their information will be protected by safeguards such as locked cabinets, passwords or encryption.

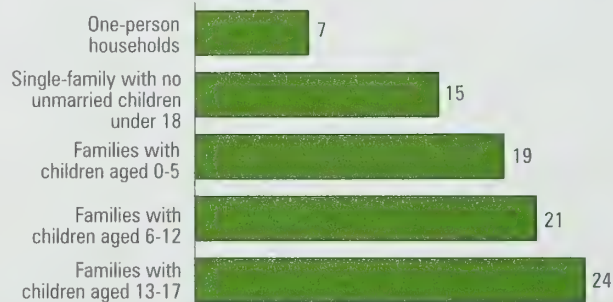
CST Highly educated, high income households and those with teenagers are most likely to be Internet shoppers

% of Internet shopper households

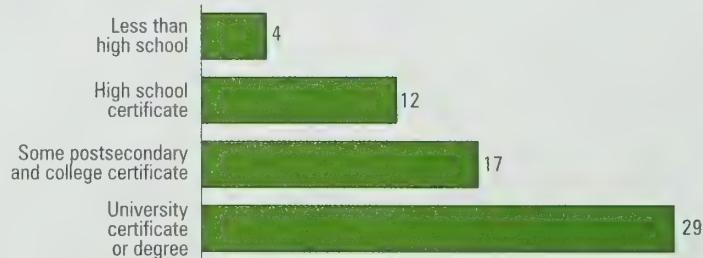
Age of household maintainer



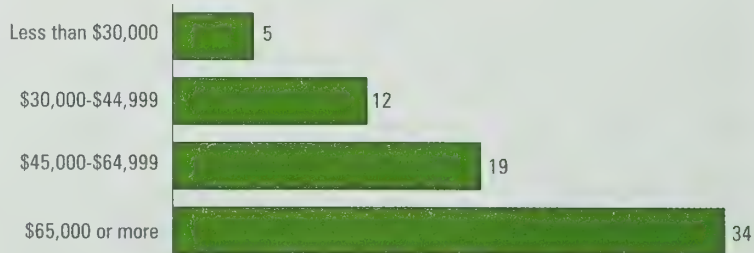
Type of household



Highest level of education of household maintainer



Household income



Note: Includes households that only window-shop and households that order goods or service over the Internet.

Source: Statistics Canada, Household Internet Use Survey, 1999.

helps consumers to reduce some of the legwork involved in making large purchases.

Who's shopping?

Previous research has shown that home Internet use was more common among households with high income, the highest levels of education, teenaged children and where the

household maintainer was aged 35 to 54.⁸ Households with the highest education and income were also the most likely to shop on-line.⁹ Households with an income of \$65,000 or higher were about 7 times as likely to be Internet shoppers (34%) as were households with less than \$30,000 income (5%). About 60% of household Internet shoppers had a

household maintainer in their mid-30s to mid-50s. Internet shopping rates were highest among households where the maintainer was in their mid-30s to mid-50s (20%), followed closely by those under age 35 (19%).

Summary

Although household Internet shopping in 1999 represented only a small part of retail commerce, e-commerce is growing rapidly. More and more households are becoming connected, and many are beginning to shape their purchasing decisions based on information they obtain on the Internet. Businesses increasingly use the Internet to disseminate information about their products and to develop relationships with their customers. This has led to growth in on-line transactions. In 1999, 1.8 million Canadian households shopped on the Internet. Books, computer software and hardware, music and travel were among the most popular on-line purchases. Canadians are still concerned about privacy and security issues related to making purchases over the Web; however, with stronger security measures, clearly articulated privacy policies and government regulations, these fears may abate in the future.

8. Dickinson, Paul and Jonathan Ellison. Winter 1999. "Plugged into the Internet", *Canadian Social Trends*.

9. Place orders or window-shop over the Internet.

CST Books and computer software are the biggest sellers on the Net

Product or service type	E-commerce households		Window-shopper households	
	Rank	%	Rank	%
Books, magazines and newspapers	1	48	3	30
Computer software	2	36	4	24
Music (CDs, tapes, MP3)	3	30	7	21
Travel arrangements	4	29	1	32
Clothing, jewelry and accessories	5	24	5	23
Computer hardware	6	24	6	21
Automotive products	7	21	2	30
Consumer electronics	8	19	8	19
Other entertainment	9	17	10	14
Other	10	16	13	7
Banking and financial	11	16	9	14
Housewares (furniture and appliances)	12	13	11	13
Videos, digital video discs	13	12	12	9
Hobbies	14	9	14	6
Food, condiments and beverages	15	6	15	5
Toys and games	16	4	16	3

Source: Statistics Canada, Household Internet Use Survey, 1999.

CST Internet Use

In 1999, 4.9 million Canadian households (or 42% of households) regularly used the Internet from their home, work, school or other locations.¹ This was up from 36% in 1998 and 29% in 1997. The home has emerged as the most popular place for household Internet access (29% of households), while work ranked second at 22%.

1. In August 2000, 41.5% of American households had access to the Internet at home. U.S. Department of Commerce. October 2000. *Falling through the Net: Toward Digital Inclusion* (<http://search.ntia.doc.gov/pdf/fttn00.pdf>). p.1.



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You snooze, you lose? — Sleep patterns in Canada

by Cara Williams

We live in a society that moves at a rapid pace and we face conflicting pressures at every turn. Many people juggle families and jobs, trying to be everything to everyone. The fast pace of our lives and the stress associated with this pace can contribute to sleep disorders such as insomnia. Ironically, some Canadians are finding that one of the few ways to squeeze more time out of a day is to cut back on sleep.

Sleeplessness can cause irritability and affect our performance of physical tasks such as driving or operating machinery, or of mental tasks requiring high levels of concentration. Studies show that chronic sleep loss may pose serious health problems such as increased risk of heart disease and depression. It can also make us much more irritable, upsetting our relations with family, friends and co-workers.

A number of factors can affect our sleep. Some — such as age, health status, stress and the presence of children — are personal; others — such as shift work — are societal. This article investigates certain aspects of Canadians' sleep patterns: whether they are cutting down on their sleep to meet other demands and, if so, which groups are doing this; how their sleeping patterns changed

CST What you should know about this study

This article is based on questions asked about sleep in Statistics Canada's 1992 and 1998 General Social Survey (GSS) of Canadians aged 15 and over. The following two questions were examined:

- Do you regularly have trouble going to sleep or staying asleep? (yes or no)
- When you need more time, do you tend to cut back on your sleep? (yes or no)

The GSS also asked respondents to provide a diary of their time use over a 24-hour period. This diary provided information on how Canadians allocated their time, including night sleep and incidental sleep (naps).

This article examines the responses to the two questions above and also looks at the average duration of night sleep and incidental sleep based on the information respondents supplied in their time-use diaries.

between 1992 and 1998; and which groups are having problems falling and staying asleep.

While you were sleeping...

Many researchers believe that adults generally require an average of 8 hours of uninterrupted sleep. However, some recent research indicates that if able to follow their own natural rhythms, adults would sleep about 10 hours each night, challenging the belief that 8 hours is adequate for peak performance and alertness.¹

While the fast pace of our lives may not allow us this amount of sleep, the 1998 General Social Survey (GSS) found that Canadians slept an average

1. Research shows that, in the absence of clocks and scheduled routines, both children and adults sleep between 10 and 12 hours and are able to perform better on a number of psychological tasks requiring participants to focus on details for an extended period of time. Coren, Stanley. 1996. *Sleep Thieves*. New York: The Free Press. p. 255.

of 8.1 hours a night, up slightly from the 1992 average of 8.0 hours. And while the percentage of Canadians that slept less than 6.5 hours a night remained constant at 15% in 1998, 47% of Canadians stated that they cut down on sleep in an attempt to squeeze more time out of the day, up from 44% in 1992.

Sleep — for some an elusive dream

One of the physical requirements of our bodies is the need for sleep. Insomnia, defined as too little sleep, is a disorder of initiating and maintaining sleep. Experts refer to three types of insomnia: transient, short-term and long-term. Studies suggest that prolonged insomnia may interfere with the body's growth and repair functions. Most people periodically experience an occasional night of sleeplessness, but for some a deep, restful sleep can be elusive. The 1992 GSS found that 20% of adults regularly had problems going to sleep or staying asleep. By 1998, this had risen to 25% of adults.

Stress can also greatly affect sleep patterns. Time-stressed individuals are more likely to have problems going to sleep or staying asleep. In 1998, over 40% of individuals who were severely time stressed² had problems sleeping.

Men, women and sleep

On average, women get more sleep than men (8.2 versus 8.0 hours a night). This is similar to 1992 GSS results for women and men (8.2 and 7.9 hours respectively). However, in 1998, 29% of women, compared with 21% of men, reported having trouble going to sleep or staying

CST Women generally sleep longer than men and are somewhat less likely to cut down on sleep when pressed for time

	Average hours of sleep/night	Sleep less than 6.5 hours	Cut down on sleep
	Hours	%	
Total population (15+)			
Men	8.0	17	48
Women	8.2	13	45
Parents			
Men	7.7	19	53
Women	8.0	14	51
Shiftwork			
Men	7.7	25	62
Women	7.9	19	61
Nappers			
Men	7.8	19	40
Women	8.2	17	38
Trouble sleeping			
Men	7.7	22	62
Women	8.1	16	56

Source: Statistics Canada, General Social Survey, 1998.

asleep. Individuals that regularly had trouble sleeping were also more likely to cut down on sleep when pressed for time — 62% of men and 56% of women, compared with 48% and 45%, respectively, in the general adult population.

Parenting also changes sleep patterns for both men and women. During their early years, children require a large amount of parental time for personal care, such as washing, feeding and dressing, as well as for playing. The responsibilities of parents for school-aged children change to helping with teaching, reading, talking and travel. Many Canadians juggle the demands of parenting and jobs. Consequently, in order to meet all these demands, many parents cut down on sleep. The 1998 GSS found that both men and women sleep less when children are in the home. The average amount of sleep for women aged 25 to 54, with

children living in the home, is 7.9 hours a night (compared with 8.1 hours for women of the same age without children in the home). Men between the ages of 25 and 54 with children at home sleep 7.7 hours a night, while men the same age without children at home average 7.8 hours a night.

Over half of these mothers and fathers (52% and 56% respectively) will cut down on sleep when pressed for time, compared with 51% of adults of the same age without children. While parents sleep less on average than those without children in the household, a lower proportion of parents regularly have trouble going to sleep or staying asleep. Less than 20% of fathers, versus 25% of men without children, had trouble initiating or sustaining sleep, and one quarter of mothers, compared with 33% of women without children, had lower-quality sleep.

2. Respondents were asked a series of 10 questions about time. If they answered yes to seven or more of these questions, these individuals were considered severely time stressed.



Source: Statistics Canada, General Social Survey, 1998.

Aging and sleep

Sleep patterns vary across ages. Men and women between the ages of 15 and 24 sleep an average of 8.5 hours a night. During the prime working and child-rearing years, the amount of sleep decreases and is at a low for both men and women between the ages of 45 and 54. The average time spent in sleep begins increasing again after age 55.

A substantial amount of research documenting the issue of aging and sleep shows that aging can be one of the causes of sleep disturbance, as many of us experience difficulty with our internal clocks. Additionally, as people age, they may experience health problems and the associated aches and pains that can affect sleep. The 1998 GSS shows that seniors sleep more than their 15- to 64-year-old counterparts (8.4 hours compared with 8.0 hours a night). However, while the average time spent in night sleep for seniors is considered healthy, 9% of seniors sleep 6.5 hours a night or less. Slightly more than 40% of those who sleep 6.5 hours or less a night have an activity limitation such

as circulatory or respiratory disease, arthritis, or heart disease, compared to only 30% of seniors who sleep more than 6.5 hours each night. This finding supports the notion that health problems affect sleep patterns. Finally, quality of sleep in seniors differs for men and women. One-third of senior women reported regular problems initiating or sustaining sleep compared with just one-fifth of senior men.

Shift work and struggling to stay awake

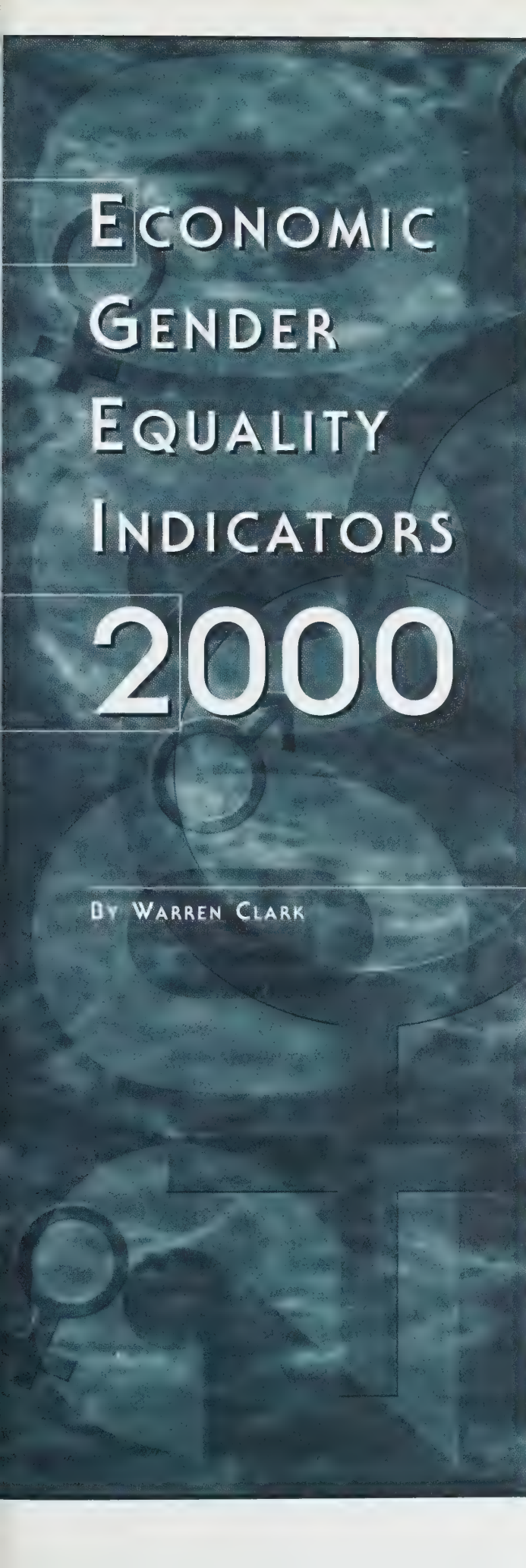
Our bodies require sleep in order to function optimally. While we are asleep our bodies both rest and restore our physical functioning. Everyone has a daily sleep-wakefulness cycle, or circadian rhythm, which reflects the physiological variations in his or her body during the day. These variations include changes in blood pressure and body temperature. While sleep requirements vary by age and individual, everyone experiences two peak periods of sleepiness during the sleep-wakefulness cycle. The first peak occurs between 1 and 4 a.m. and the second, 12 hours later, between

1 and 4 p.m. — a time that coincides with the 'siesta' in warmer climates. Although our North American culture does not officially acknowledge daytime sleepiness by closing stores and businesses in the afternoon, until World War II very few were open during the first peak period of sleepiness, between 1 and 4 a.m. However, since the war, our demand for goods and services has required more around-the-clock production: shift work and night work have become more common and can be very disruptive of the body's natural rhythm. Numerous studies have shown that commercial truck drivers, night workers and shift workers do not get adequate sleep and build up a large sleep debt over their shift cycles.³ In 1998, one-third (32%) of working Canadians worked something other than a regular daytime schedule or shift.⁴ Of these shift workers, the average duration of night sleep was 7.8 hours, the same as that of day workers. However, regular night-shift and split-shift workers slept the least of all the shift worker groups at 7.7 hours a night, and over one-quarter of night-shift workers slept less than 6.5 hours a night — thereby accumulating a large sleep debt.

The quality of sleep for shift workers differs from that of regular daytime workers. About 30% of shift workers (versus 23% for regular daytime workers) had trouble going to sleep or staying asleep and 62% (versus 55% of regular daytime workers) cut down on sleep when pressed for time.

3. A number of studies documenting the effects of shift work and extended working hours can be found on the Transport Canada Web site at www.tc.gc.ca.

4. This includes regular evening and night shifts, rotating shifts, split shifts and on-call or casual shifts, or an irregular schedule.



ECONOMIC GENDER EQUALITY INDICATORS 2000

BY WARREN CLARK

Gender equality has been identified as a priority for countries around the world. Women are making gains, but persistent disparities exist between women and men. The gender equality indicators presented here were developed in conjunction with Status of Women Canada to measure the balance of the experiences of Canadian women and men in three domains: income, work and learning. This is the second edition of the indicators. The first was released by the Federal-Provincial/Territorial Ministers Responsible for the Status of Women in October 1997.¹

The gender equality indexes use ratios of women to men to show the differences between the sexes for a given measure of equality. A ratio of 1.0 means women and men are equal. An index above or below 1.0 indicates inequality or imbalance for that measure: below 1.0, women have less than men; above 1.0, they have more. A gap that is closing over time, converging on 1.0, may result from changes in women's situation, or in men's situation, or both.

1. More information on why these indicators were selected and the conceptual and data issues faced in developing them and how they are intended to stimulate public policy discussion can be found in the original 1997 publication, *Economic Gender Equality Indicators*, available at <http://www.swc-cfc.gc.ca/publish/egei/layoute.pdf>. The historical data in the original publication may differ due to small changes in definitions and revisions to the raw data.

DOMAIN: INCOME

Traditionally, gender imbalances in income have been measured by comparing the full-time full-year earnings of women and men. This is a limited approach because women more often work part-time or part-year than men, making their sources of income more varied and less concentrated on earnings. The income indexes used here recognize all income and earnings of women and men, regardless of their employment status.

DOMAIN: WORK

The decisions people make about dividing their time among work, family and leisure have numerous implications. Work performed by women is often invisible to current measures of economic progress because only goods and services exchanged for pay are included. Unpaid work—the vast majority of which is still performed by women—is not counted. As everyone has the same amount of time every day, time spent doing paid and unpaid work provides another measure of equality.

Paid work is work performed for remuneration, whether in a separate workplace or at home, and includes wages, salaries and income from self-employment. Unpaid activities are classified as *unpaid work* when the goods or services produced could have been purchased in the market. For example, unpaid work includes meal preparation, since a meal could be bought at a restaurant; likewise, childcare or eldercare are included, because these services could be purchased from daycare centres or retirement homes. In contrast, someone else cannot sleep, learn and travel to and from work for another person, so these activities are not classified as unpaid work.²

DOMAIN: LEARNING

Education has been and continues to be a critical element in economic well-being. Not only must people be well-educated when they first enter the labour market, they continually need to learn new skills to take advantage of new opportunities as they arise. These indicators assess the gender balance in university education and work-related training as well as women's return on their investment in education.

2. The General Social Survey (GSS) estimates of total work include education and related activities and commuting. See *Overview of the Time Use of Canadians in 1998*. Statistics Canada Catalogue no. 12F0080XIE.

INCOME

Total income index

The total income index compares the average total income of women and men.³ In recent years, the total income index has increased, indicating that the gap in total income between genders is narrowing. In 1997, the average total income for Canadian women aged 15 or over was about \$18,000 compared with \$30,900 for men. The total income equality index for that year was 0.58, meaning that overall women received about 58% as much income as men (see Figure 1).

Total after-tax income index

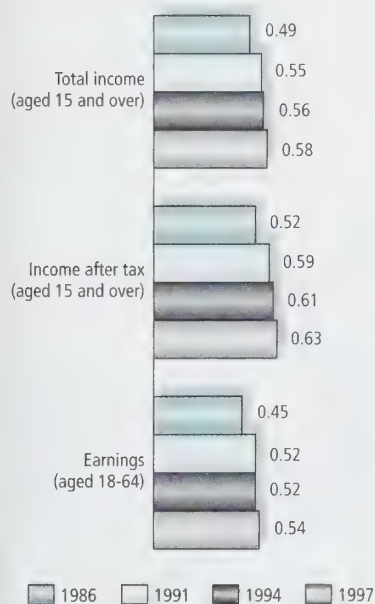
The Canadian income tax system is a progressive one, allowing those with less income to keep proportionately more of their money.⁴ Because women's income is lower than men's, the total after-tax income index is higher than the total income index. In 1997, the after-tax income index stood at 0.63, up from 0.61 in 1994 (see Figure 1).

Total earnings index

This index compares the earnings of women and men aged 18 to 64 and includes those who have no earnings for various reasons (for example, unemployment, disability or full-time childrearing at home). The index includes earnings from part-time work, where women predominate. For this reason, it is lower than the full-time, full-year wage ratio that is often used to measure the wage gap. In 1997, women earned \$16,300 compared with \$29,900 for men, resulting in a total earnings index of 0.54. Like the other income indexes, the imbalance in earnings between women and men has declined since 1986 (see Figure 1).

FIGURE 1

Gender equality indexes for total income, total after-tax income and total earnings



Source: Statistics Canada, Survey of Consumer Finances.

3. Total income includes all income received by an individual during a calendar year from sources such as wages, salaries, self-employment income, investment income, net rental income, pensions, employment insurance, child and spousal support payments and government transfers. Money received from irregular sources, such as windfall gambling gains, inheritances, realized capital gains, or income-in-kind is excluded.

4. Other taxes—such as sales or property taxes—also affect disposable income but are not factored into this index.

Analysing the gender gaps

Gender differences in income and earnings may be accounted for in part by women's concentration in part-time work and low-paying occupations; women's overrepresentation among lone parents; and women's overrepresentation among seniors who have low earnings. Calculations were made to account for these and other socio-demographic differences.⁵ In 1997, these adjustments reduced the gender gap by seven percentage points in after-tax income and eight percentage points in earnings (see Figure 2).⁶

WORK

Total workload index

The concept of total workload encompasses both paid work and unpaid work of economic value. In 1998, Canadian women aged 15 and over spent 7.8 hours per day working at paid or unpaid work while men spent 7.5 hours working. The total workload index was 1.04 in 1998, down from 1.08 in 1986. While the gap is shrinking, women work an average of about 15 minutes more per day than men. This imbalance in total work seems to be greatest for young

TABLE 1

Gender equality index for workload, by age group, 1998

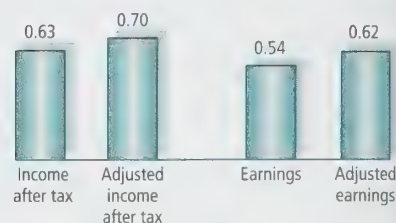
Age of respondent	Total workload index	Paid work index	Unpaid work index
15 and over	1.04	0.62	1.56
15-24	1.18	0.80	1.74
25-34	1.03	0.63	1.75
35-44	1.02	0.60	1.67
45-54	1.01	0.65	1.56
55-64	1.06	0.59	1.42
65+	1.11	0.39	1.19

Source: Statistics Canada, General Social Survey.

5. To eliminate the impact of age, occupation, education, types of employment and family status, average after-tax income and earnings were standardized to show what the pattern would look like if women and men were equally represented in four age groups (15 to 29, 30 to 49, 50 to 64, 65 and over); in 16 occupational categories; in four education groups (less than grade 10, grade 11 to 13, some postsecondary including postsecondary diploma or university degree); in three types of employment (full-time, part-time and no employment); and in two types of family status (a child under 6, no child under 6).

FIGURE 2

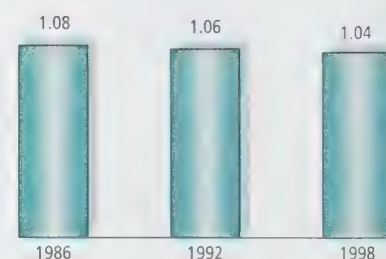
Gender equality indexes for income after-tax and earnings, before and after accounting for socio-demographic factors, 1997



Source: Statistics Canada, Survey of Consumer Finances.

FIGURE 3

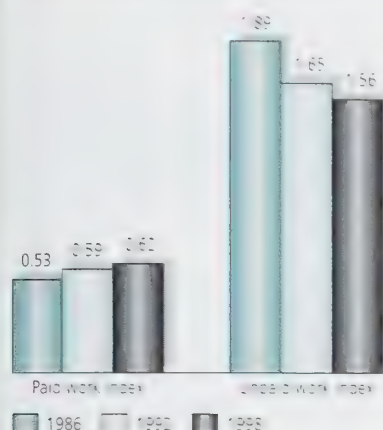
Gender equality index for total workload



Source: Statistics Canada, General Social Survey

FIGURE 4

Gender equality index for paid and unpaid work



Source: Statistics Canada, General Social Survey.

women aged 15 to 24 (1.18) and for senior women (1.11), while women aged 45 to 54 experience near equity (1.01) (see Figure 3 and Table 1).

Paid work and unpaid work indexes

Men still spend much more time than women in paid work activities while women spend more time in unpaid work activities. While the gender gap in both paid and unpaid work remains substantial, it declined between 1986 and 1998 (see Figure 4).

Paid and unpaid work ratios by household structure

The distribution of paid and unpaid work between women and men varies with the presence of young children and multiple earners in a household. Separate work indexes were calculated for women and men aged 20 to 44 who are employed full-time. Three household categories of individuals were examined: dual-earners (both spouses employed full-time) with young children (children under age six); primary-earners (two-parent households, other spouse not working full-time) with young children; and earners without young children.

FIGURE 5

Paid work index for women and men aged 20-44, employed full-time



Source: Statistics Canada, General Social Survey.

In both 1992 and 1998, women devoted less time to paid and more time to unpaid work, regardless of the household structure. For dual-earners with young children, the differences in paid work between women and men declined. In contrast, the index fell from 0.91 to 0.85 for primary-earners, suggesting that the imbalance is increasing. The change to the imbalance for earners with no young children was very slight. However, because few women are primary-earners with young children, the estimates have high sampling variability. This in turn results in no statistically significant change in the paid work index (see Figure 5).

The unpaid work index shows that, over time, the imbalance between women and men has declined for both dual- and

6. For an analysis of gender differences in wages in Canada and the United States in the late 1980s, see Baker, Michael and Nicole Fortin. 2000. *Gender composition and wages: why is Canada different from the United States?* (Statistics Canada Catalogue no. 11F0019MPE, no.140)

primary-earners with young children. The index for earners without young children was about the same in 1998 as in 1992 (see Figure 6).

Beneficiaries of work

Unpaid work by women and men benefits many people both inside and outside the household. Some unpaid activities such as child care and volunteer work have obvious beneficiaries while other activities such as housekeeping, or shopping for goods and services or cooking and cleaning may benefit the entire household or individual members of the household. For the purposes of this comparison, and because work related to children is one of the most important factors affecting women's economic situation when compared with men's, only child care is examined here.

In 1998, women dual-earners aged 20 to 44 with young children spent more time than men caring for their children on an average day—147 versus 85 minutes. This resulted in an index of 1.72, indicating that women dual-earners spent an estimated 72% more time on child care than men dual-earners. Though women still spend more time on child care, the imbalance between mothers and fathers declined between 1992 and 1998. The index for primary-earners in particular declined, from 1.71 to 1.27, which reflects a drop in time spent on child care activities for women and an increase for men. In 1998, primary-earner women with young children spent 107 minutes on child care during an average day, compared with 85 minutes for primary-earner men (see Figure 7).

LEARNING

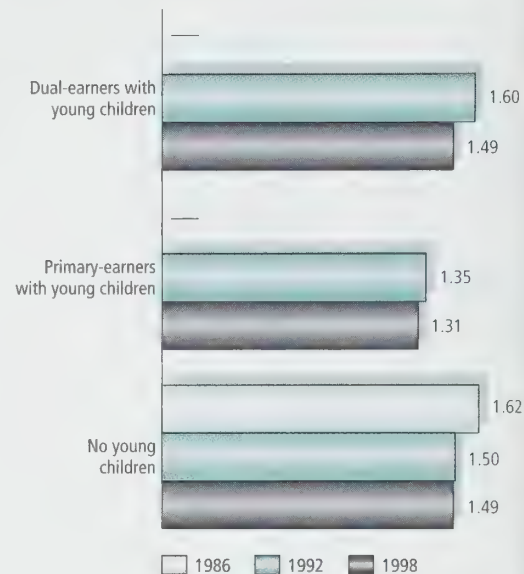
University degrees granted indexes

The university degrees granted index compares the concentration of women in female-dominated, gender-neutral and male-dominated fields⁷ of study for university degrees.

7. Male-dominated fields include those where more than 60% of degrees were granted to men. Female-dominated fields include those where more than 60% of degrees were granted to women. In all other cases, the fields are classified as 'gender neutral'.

FIGURE 6

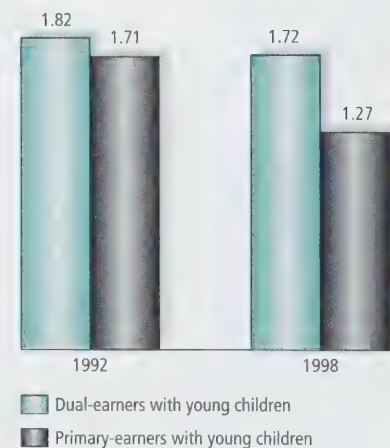
Unpaid work index for women and men aged 20-44, employed full-time



Source: Statistics Canada, General Social Survey.

FIGURE 7

Child care index for women and men aged 20-44, employed full-time

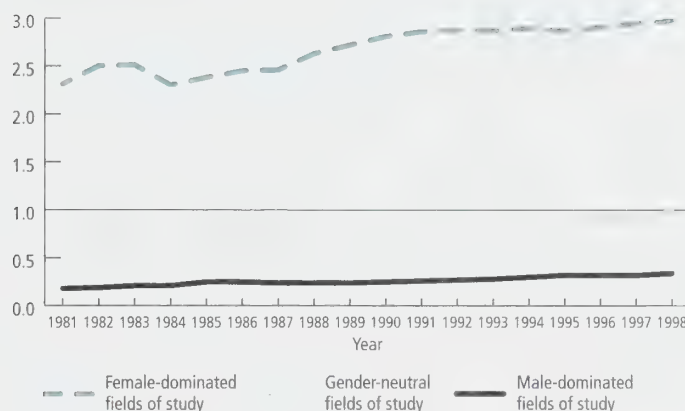


Source: Statistics Canada, General Social Survey.

Between 1981 and 1998, more women entered traditionally male-dominated and gender-neutral fields. As a result, the index shows that women's share of degrees granted has increased in all three categories of fields of study, even in female-dominated fields. Although more women are graduating from male-dominated and gender neutral fields (creating greater gender balance in those fields), more are also graduating from female fields, which accentuates the imbalance in those fields (see Figure 8).

FIGURE 8

Gender equality indexes for university degrees granted



Source: Statistics Canada, University Student Information System (USIS).

FIGURE 9

Gender equality indexes for training participation in Canada



Source: Statistics Canada, General Social Survey.

Training indexes

The training participation index shows the extent of employed women's participation in employer-supported training or job-related training.⁸ In 1997, employed women were more likely than men to participate in training designed to develop new skills and knowledge (see Figure 9). However, the training time index, which compares the actual time spent in training, shows that, although women received less employer-supported training than men in 1997, they received more job-related training. This suggests that women compensate for less employer-sponsored training by paying

8. The training participation index is calculated based on the ratio of the percentage of employed women aged 25 to 49 who took training in the previous 12 months related to the percentage of employed men aged 25 to 49 who did. Separate indexes were calculated for employer-supported training (training paid for or supported by the employer) and job-related training. Job-related training includes both employer-supported training and job-related training paid for by employees themselves.

for job-related training themselves and by taking it on their own time (see Figure 10).

Occupational return on education index

This index examines the gender imbalance in the return on investment on university education in terms of working in a high-level job.⁹ In 1986, 51% of women university graduates worked in high-level jobs compared with 74% of men, and the occupational return index was 0.69. By 1998, 49% of women and 62% of men university graduates aged 25 to 64 were working in high-level jobs, resulting in an index of 0.78. While both men and women university graduates were less likely to be in high-level jobs in 1998, the gap between women's and men's in return on a university education had narrowed (see Figure 11). ■

9. The index is based on the percentage of university degree holders aged 25 to 64 who work in a high-level job. High-level jobs are defined as the three highest categories of the Pineo socio-economic classification of occupations (i.e., self-employed professionals, employed professionals and high-level managers). This classification is based on job income and other characteristics that are related to societal status or prestige. These groups include occupations in health diagnosing, architecture and engineering, social sciences, physical sciences, elementary, secondary and university teaching and government administration. This scale was originally developed in the 1970s and was updated using 1981 census data. Further efforts are needed to design a scale using more recent job evaluations.

FIGURE 10

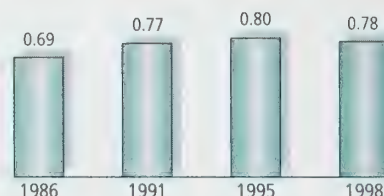
Gender equality indexes for training hours



Source: Human Resources Development Canada and Statistics Canada, Adult Education and Training Survey.

FIGURE 11

Gender equality index for occupational return on education



Source: Statistics Canada, Survey of Consumer Finances.

RECENT PUBLICATIONS DEALING WITH GENDER ISSUES

Baker, Michael and Nicole Fortin. 2000. *The gender composition and wages: Why is Canada different from the United States?* (Statistics Canada Catalogue no. 11F0019MIE00140)

Statistics Canada. 2000. *Women in Canada 2000: a gender-based statistical report.* (Statistics Canada Catalogue no. 89-503-XPE)

Statistics Canada. 1999. *Overview of the time use of Canadians in 1998.* (Statistics Canada Catalogue no. 12F0080XIE)

Playing catch-up on the weekend

Weekdays can be very hectic for many adult Canadians. Between work and school, leisure activities and child-care, we race around trying to get everything done. Before we know it, we have cut into the time we hoped to spend sleeping. For many, weekends provide a much-needed reprieve from the weekday rat race, and many people play "catch-up" by sleeping more on the weekends. Indeed, the 1998 GSS time-use diaries show that adult Canadians sleep, on average, 48 minutes more on Friday and Saturday nights, for a total of 8.6 hours each night.

Caught snoozing

The afternoon snooze is not common in Canada and is much maligned as a practice of the lazy. The pace of our lives and the structure of society prevent many from taking naps. Daytime sleepiness is natural and usually occurs between 1 and 4 p.m. as our bodies go through the second ebb in their biological rhythms. We may try to fight this urge to rest by drinking coffee, getting fresh air or just trying to ignore it. However, research at the Stanford Sleep Disorders Clinic⁵ indicates that a well-timed nap during this period can improve performance and alertness for hours after the nap: a 45-minute nap is said to improve alertness for the next six hours.⁶ While on an average day, only 13% of Canadians 15 and older take naps, those that do nap sleep for an average of 1.7 hours. Certain groups are more likely to nap than others. For example, 26% of seniors, 16% of those keeping house and 13% of those looking for paid work — people more likely to be at home — take naps. Students and paid workers are the least likely to nap.

Naps can be a very effective way of reducing sleep debt and improving alertness. This can be especially important for shift workers or for

CST Circadian roulette

Not surprisingly, chronic lack of sleep results in sleep debt and can have serious consequences, such as illness and accidents resulting from impaired judgement. Recent studies suggest that even moderate sleep deprivation (being awake more than 18 hours daily) results in reaction times that are slower than for those who are legally impaired from alcohol.¹

Nearly every major industrial accident in recent decades has occurred after midnight: both the Chernobyl and Three Mile Island nuclear disasters occurred between 1 and 4 a.m. Indeed, some of the world's most horrific accidents have been attributed to sleep debt: for example, the oil spill from the Exxon Valdez and the explosion of the Challenger space shuttle both have been attributed to sleep deprivation and sleep debt.²

Many commercial transportation accidents have been attributed to driver fatigue. The risk of a single-vehicle truck crash is four times as high between the hours of 3 and 5 a.m.³ Current regulations in Canada allow commercial truck drivers to legally work more than 100 hours a week. Proposed legislation will cap the allowable work time to 84 hours a week (an average of 14 hours in a six-day workweek).

Because shift work and other jobs with variable work hours can wreak havoc with our circadian rhythms, a number of studies have been conducted on the effect of fatigue on commercial truck drivers, pilots, flight crews, air traffic controllers and doctors — all professions that can require extended hours or variable shifts, or both. The general conclusion of these studies is the same: individuals working extended hours or variable shifts suffer from sleep deprivation and have significant sleep debt, and this in turn results in a decrease in their ability to concentrate, a deterioration in their performance, and a high variability in their moods.⁴

1. *The Globe and Mail*. Sept. 19, 2000. p. A8.

2. Dement, William A. 1999. *The Promise of Sleep*. New York: Delacorte Press. p. 51 and 53.

3. *The Windsor Star*. July 14, 2000. p. A7.

4. See Transport Canada's Web site at www.tc.gc.ca for a list of studies.

those who work long hours, such as truck drivers and pilots. However, in 1998, only 8% of shift workers took naps.

Summary

Thomas Edison believed that sleep was wasteful, unproductive time and that the continuous daylight that his light bulb provided would revolutionize

the world. Indeed it has, but while we produce goods and provide services 24 hours a day, our physiology

5. The Stanford sleep laboratory was created in 1970 as the world's first sleep disorder center.

6. Dement, William A. 1999. *The Promise of Sleep*. New York: Delacorte Press.

CST The largest creditor — sleep debt

Sleep debt is calculated by subtracting the amount of sleep an individual gets from the amount of sleep that an individual needs.¹ Not getting enough sleep over an extended period results in considerable sleep debt. Scientists believe that the effects of prolonged sleep loss may affect a person's health since the effect of sleep loss accumulates over time. Even a small sleep debt of seven to eight hours has direct effects on mental performance, memory and reaction times.² Periodically, many people may have one or two nights when they don't get enough sleep, but they usually make up for missed sleep somewhere down the road (for example, sleeping in on a Saturday morning, or taking a nap during the day). Using the 1998 GSS data, on an average day, 15% of Canadians 15 and older sleep less than 6.5 hours a night. Certain groups are more likely than others to do so. For example, 19% of fathers and 25% of male shift workers sleep less than 6.5 hours a night. Not surprisingly, individuals with lower-quality sleep (not being able to initiate or sustain sleep) accumulate substantial sleep debt because they not only have trouble initiating sleep, but about 18% of these individuals sleep less than 6.5 hours a night.

1. The amount of sleep an individual needs varies based on body chemistry, age and activity levels, but for an adult it is thought that between 8.0 and 8.5 hours a night is healthy.
2. Coren, Stanley. 1996. *Sleep Thieves*. New York: The Free Press.

has not kept up with the technological advances society has made. Sleep remains a vital component in a healthy life. Without adequate sleep we are more likely to be moody and less able to concentrate. Over the long run, a chronic lack of sleep can affect our health. Our bodies run on a clock. As the skies darken at the end of the day, our brains signal that it is time to get ready for sleep. The 1998 General Social Survey indicated that the average amount of time spent in night sleep for adult Canadians was up slightly from the 1992 figures. However, when push came to shove, the 1998 GSS showed that almost half of Canadians cut back on their sleep when they need more time.

Not surprisingly, certain groups slept less than others; overall men slept less than women, and Canadians with children in the household slept less than those without children.

Seniors and individuals aged 15 to 24 slept more than any other group — an average of 8.4 and 8.5 hours a night, respectively.

Finally, perhaps as a result of our frantic pace, the quality of our sleep comes into question. One-quarter of the general adult population, 40% of severely time-stressed people and about 30% of shift workers regularly had problems going to sleep or staying asleep.



Cara Williams is an analyst with Housing, Family and Social Statistics Division, Statistics Canada.

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The evolution of communication

by Cara Williams

The 20th century has seen enormous changes but probably none as rapid and all-encompassing as the revolution in communication technologies. The changes seen over the last 100 years have transformed the way we perceive things, the speed with which we do things, and our expectations. In the early part of the century, long-distance communications and the broadcasting of events could take weeks. Today, we are able to view images or correspond with someone from virtually anywhere in the world instantly.

As communication technologies evolve, they overlap as each succeeds (or supplements) the other. For example, while the telephone was introduced in Canada over 100 years ago and the newspaper over 200 years ago, they remain vital components of the communications array used today. Conversely, the telegraph, which is the ancestor of many of the current communication technologies, is obsolete.

Communication technologies can be divided into two distinct types. The first is the one-way broadcast of information (as found in newspapers, radio and television), which generally occurs in a very public forum. The second type of communication is two-way or interactive communication, which occurs in a quasi-public or personal forum. These media include the post, the telegraph, and the telephone. The Internet and e-mail act as one-way and two-way communications allowing for interaction as well as the broadcast of information.¹ This article discusses how the communication technologies used by Canadians have evolved and changed over the 20th century.²

And that's the news from here

Broadcast communications involve relaying information — there is no immediate interaction. Nevertheless, the information and the images beamed to us play a role in how we define ourselves as individuals and as a society. Undoubtedly, one of the major accomplishments of the 20th century has been the advancement in broadcast technologies. Through radio, television and newspapers, we have been told about events happening thousands of miles away. Canada has become part of a global society and Canadians have changed their way of thinking about themselves, their country and the world.

Stop the press! The newspaper stands the test of time

The first newspaper in Canada was the *Halifax Gazette*, which produced its first issue in 1752. Since then, hundreds of newspapers and periodicals have come and gone. Until Confederation, most newspapers were published only once a week, but, as Canada moved towards the 20th century, daily newspapers began to appear. By 1900, the country boasted about 112 daily newspapers.

Competition was fierce as each paper sought to expand circulation and capture much-needed advertising dollars. The number of dailies peaked in 1913 at 138, but by 1945 only 87 remained. This decline is largely attributed to the rise of radio and television as well as intra-industry competition. In the 1920s, newspapers jostled amongst themselves for advertising dollars, but with the advent of radio (and later of television), advertising revenue fragmented still further. Perhaps more

important than this, though, is that the Canadian public could now turn to other media to get the news.

One of the single most important features of a newspaper is that a significant portion of it is dedicated to local and community news. In addition to their comprehensiveness and portability, undoubtedly this is one of the reasons that the “old technology” newspaper remains popular. In fact, the newspaper industry saw a revival of sorts in the 1980s. The number of dailies grew to 110 in 1986, with a daily circulation of 5.7 million. At the same time, circulation of weekly community newspapers increased to 9.7 million in 1986. By 1999, the Canadian Newspaper Association reported that there were 104 daily general interest newspapers in Canada, with a daily circulation of more than 5.1 million. Interest in community newspapers remains strong, as indicated by the 1999 results of the Print Measurement Bureau study on Canadians’ print media habits, which found that there were over 10.6 million weekly readers.

Radio signs on

Today's radio stations offer Canadians numerous choices, from “all news” to “easy listening”, in an effort to find and keep a steady audience. But to Canadians living on a homestead in

1. For the purposes of this article, the Internet and e-mail are included in interactive communications.

2. This article draws on numerous data sources. A full bibliography is available on the *Canadian Social Trends* Web site at www.statcan.ca/english/ads/11-008-XIE/index.htm

Saskatchewan or northern Quebec at the beginning of the 1920s, radio was an exciting new phenomenon. The first Canadian radio broadcast was transmitted by the Canadian Marconi Company in Montréal in 1919; regular programming commenced in 1920. At this time, stations were only on the air a few hours a day and many urban centers had two or more stations sharing a single frequency. This enabled broadcasting licence holders to lease time on existing stations. "Phantom stations", as they were known, began to emerge.

In 1922, broadcasting became regulated when the government granted 52 private commercial and amateur broadcasting licenses. Surprisingly, news content was minimal in these early years and radio stations did not challenge the dominance of the newspapers.

During the early years, radio programming was basically regional. The first national broadcast was not carried until 1927, with the coverage of the celebration of the Diamond Jubilee of Confederation and the dedication of the Peace Tower on Parliament Hill. In 1936, the government created the Canadian Broadcasting Corporation (CBC), making it responsible for providing national radio service in Canada; by the following year public radio reached 76% of the Canadian population.

The 1940s were the golden age of radio. Significant developments were made in radio during the Second World War, including the introduction of hourly news broadcasts and the development of mobile transmitters which allowed news stories to be broadcast on location, rather than just from the radio studio. During the 1940s, the radio was also an important source of entertainment. But by the early 1950s, television began to make significant inroads in the communications and entertainment industry, and evening radio programming, which consisted of variety shows and drama, lost much of its audience.

Radio was able to reinvent itself with the help of the car radio and the increasing number of people commuting to work. Additionally, the development of portable radios (beginning with the transistor radio) has helped to sustain some of the radio's appeal. Today's radio provides us with a variety of stations from music and news to "talk" radio, that we can listen to throughout our day. Indeed, in the fall of 1999, Canadians listened to the radio for an average of 20.5 hours per week, with adult contemporary as the most popular listening format.

The era of channel surfing

Television has played a profound role in changing our national and world-views. Beyond entertainment value, television brings images from around the world into our living rooms. These images have enabled us to witness events almost as they happened, making us not only instantly aware of world events, but also letting us discover how they affected peoples' lives. Television broadened Canadians' understanding of the world by expanding their scope of knowledge.

The first television broadcast in Canada did not occur until September 1952, but by then there were already 225,000 television sets in Canadian homes: people living close to the U.S. border were able to receive broadcasts from American stations and so purchased TVs. Canadian television broadcasting was launched with the debut of the CBC's television arm. The first private station (located in Sudbury, Ontario) followed about one year later in October 1953. In 1961, Canada's second privately-owned national network, CTV, made its debut. A strong base for another network certainly existed, since 83% of households (4 million homes) boasted a TV set by then. By 1972, over 88% of all Canadian households had at least one television and 20% of households had a colour set.

Cable television was first introduced in London, Ontario in 1952 with the aim of improving signal reception in rural areas. It had a relatively slow start, but companies decided that the solution was to enter large urban markets, and by 1975, 40% of households had cable.

The purpose of cable today is no longer simply to improve the reception of local channels but to increase the number of stations available to consumers. This has also entailed competing with the direct-to-home satellite and wireless cable services that are now available. The development of specialty channels and pay-TV, initiated in 1983 and supplemented by more channels in 1989 and 1995, has both led and followed the expansion of cable. In 1998, 73% of households (over 8 million) were cable³ subscribers receiving some level of cablevision. With the growth in the number and types of channels, the viewing audience has become increasingly fragmented as both conventional broadcasters and the specialty channels compete for the same audience.

With so many choices available, it is not surprising that Canadians watch a variety of programming. However, throughout the 1990s Canadians spent the lion's share of their viewing time watching drama and news programming (more than 50% over the decade).

Today, virtually all Canadians have at least one television in their home. Not surprisingly, the largest proportion of our leisure time is spent watching television — about 2.2 hours each day in 1998 — illustrating the central role that television has in our lives.

Hello... we're waiting for your response

Interactive communications allow us to stay in touch with each other — to talk

3. This includes the direct-to-home and wireless cable.

and listen, to send and receive. Two-way communication technologies have been developed for discourse. This type of communication has evolved to allow, and perhaps demand, almost instantaneous reaction. Included in two-way communications are the mail, telegraph, telephone and Internet.

Neither rain nor snow...

The first pony express rider in North America

Before Confederation, the Post Office had links to both the United States and British postal services. Contrary to legend, the first pony express riders in North America did not gallop across the open plains of the American West, but rather traversed the rolling landscape from Halifax to Digby, Nova Scotia.⁴ The parcel of letters and news dispatches was then transferred to a boat bound for Maine, where the U.S. postal system took over delivery.

The Post Office Act of 1867 created the Canada Post Office, making the federal government responsible for both domestic and international mail. Service was limited, though, and it was not until October 1908 that rural mail delivery began. Even then, it was restricted to existing stagecoach routes, where mail was both picked up and delivered. Delivery was expanded in April of 1912, and the number of rural routes increased five-fold from 900 in 1912 to over 4,300 in 1933.

Given Canada's vast landmass, it was only a matter of time before the Post Office experimented with transporting mail by air and, in 1939, daily cross-country airmail service began. In 1948, Canada became the first country in the world to transport all first-class domestic mail by air.

After World War II, the volume of mail grew enormously, from approximately 2 billion pieces in 1945 to 4.8 billion in 1970. Because of the increase in volume, "next day delivery for the price of a stamp" became impossible. Private courier companies eager to tap

into this market began to compete with the post office's premium services, such as special delivery and courier services, challenging the government's monopoly on mail delivery.

By the beginning of the 1980s, the Post Office was running deficits of about \$600 million every year. In an effort to turn this situation around, postal services were taken out of the government department and made the responsibility of a Crown Corporation in 1981. By 1989, Canada Post Corporation had recorded its first profit.

In the 1990s, Canada Post faced competition not only from courier companies but also from electronic communications such as facsimile machines and e-mail, which provide almost instantaneous delivery of letters and documents. As these technologies became more widely accessible, the volume of mail processed by Canada Post and its affiliate courier services decreased from 10.4 billion in 1993, to 9.6 billion pieces in 1998.

Send money!

"Time continues to indicate that the transmission of the written word by telegraph is indispensable to trade, industry and social life. Its reliability, coupled with its accuracy and speed, undoubtedly will continue to retain for it a popularity over all other forms of written communication." – CPR Facts and Figures, 1937

As with so many predictions, this one was sadly incorrect. Nevertheless, it illustrates the important role that the telegraph played in the early part of the 20th century.

The first telegraph line in Canada was installed in 1846 between Toronto and Hamilton. At the beginning of the telegraph age, numerous companies sprang up, but, as services were consolidated, most small companies were bought out by larger ones. The federal government also operated a telegraph service. The Dominion Government Telegraph Service was designed to

furnish rapid communication for sparsely populated areas that private companies had no incentive to serve, such as the coast of Vancouver Island, the Peace River area of northern Alberta, and the coast of Cape Breton.

In 1912, over 10 million telegraph messages were transmitted over more than 182,000 miles of wire and almost 39,000 miles of telegraph lines. The telegraph remained a vital communications link during the Depression years and throughout the 1940s. In 1946 alone, over 18.4 million telegraph messages were transmitted.⁵ But the technology underlying the telegraph aided in the development of the telephone, since the telephone initially utilized existing telegraph lines. Gradually, the importance of the telegraph as the primary means of long distance communication began to fade. From a high of 21.8 million telegrams transmitted in 1951, the industry reported transmission of only 4.4 million in 1975. And while the telegraph no longer plays a central role in communications strategies, it laid the foundation for other technologies we use today.

At the beep, please leave a message

The telephone was introduced in Canada in March 1876 and the first long-distance phone call was made that August, between Brantford and Paris, Ontario — a distance of 8 miles. Ten years later, there were 13,000 telephones in Canada. We've been talking non-stop ever since.

The telephone was adopted so quickly that, by 1911, there were 537 telephone companies in the country. Within another two decades, the

4. The Canadian Railway Telegraph History Web site. <http://web.idirect.com/~rburnet/trivia.html>

5. "Transmitted" includes messages sent in Canada or received in Canada. This does not include cablegrams or money transferred.

number had grown to over 2,400 companies, including three large provincial telephone systems in Manitoba, Saskatchewan and Alberta. In 1933, Canadians made an estimated 2.2 billion local and over 24 million long-distance calls.

In 1911, there were 4.2 telephones for every 100 people; by 1930, it was 14.1 telephones. In 1942, Canada ranked third in the world in telephone access behind the United States and Sweden. Although not every household has a telephone (99% of households do), there were more access lines than households in Canada in 1997 (107.3 per 100 households). These extra lines are mostly attributed to the growth in Internet access lines, facsimile and second voice lines.

The telephone has undergone its own profound evolution. A myriad of services such as call waiting, call forwarding, and call display can be added to individual lines. Additionally, the technology attached to our telephones has changed. When voice mail, modems and facsimile machines are connected to our phone line, the rotary phone is no longer adequate (indeed, it is virtually impossible to obtain a rotary or pulse line anymore). With the speed at which communications technology is changing, some people are getting left behind. The 1994 General Social Survey (GSS) indicated that income, education, and age play important roles in determining who uses everyday technology such as the answering machine. For example, only 37% of seniors had used an answering machine in the previous 12 months.

In 1985, the cellular phone was introduced to the communications market. Cellular telephones use wireless transmission technology to provide access through the public switch telephone network, thus making the phone handset mobile and their users accessible at all times. Canadians quickly embraced the cell phone; between 1994 and 1996, the number of cell phone

subscribers almost doubled to over 3.4 million. In 1997, 19% of Canadian households had a cell phone for personal use, up from 14% the previous year. It is estimated that by 2005, 11.7 million Canadians will be cell phone subscribers.⁶

Information overload

When a computer connects to a communications network to access the Internet, to use an e-mail account, to use electronic banking services or buy something from a Web site, computer communications occur. The Internet and e-mail have changed the speed at which we communicate and the volume of information we can send and receive. Where we once complained that information was scarce, many Canadians find that today the amount of information available is overwhelming.

The Internet had its inception in the mid-1970s with ARPANET. This precursor was successfully used by a small group of academics and scientists who shared information, accessed remote computers and routinely used e-mail. University researchers adopted the Internet early on, but in 1990 it was still an alien concept to the average person. Today, use of the Internet and the World Wide Web is standard in public schools and places of work, as well as universities. And because so many school children use the Internet to research their projects, it is fast becoming commonplace in many Canadian homes.

In 1999, 42% of all Canadian households used the Internet (either from home, work, school or the public library), up from 29% in 1997. The younger generation is more connected — Internet use in 1998 was highest (47%) among households headed by a 35- to 54-year-old, the households most likely to have children living in the home.

Computer communications in the home is also accelerating. In 1997, 16%

of households regularly used computer communications from home; by 1998, the figure was 23% (2.7 million households), and by 1999 this had increased to 29% of all households.

Not surprisingly, the most popular use of the Internet at home is e-mail. Fully 86% of those households that were "plugged in" used e-mail. General browsing, looking for information, getting medical information, and electronic banking are some of the other things for which households used the Internet in 1998.

Summary

Communication in a country as large as Canada is difficult, but crucial to a sense of well-being and social connectedness. Rural and remote regions require communication systems to hear what is happening in other parts of the country and the world. Early in the 20th century, the telegraph and the post office were the primary means of communications. As time progressed, new communication technologies bridged the distances faster. Today, we are able to speak with friends, relatives or conduct business across the country or around the world instantaneously. In fact, many contend that today we are too connected, and would just like to get away from it all into the vast open spaces our grandparents knew.

6. This assumes an S-curve pattern of product penetration rates. For more information, see Chodorowicz, D. August, 1998. "The cellular telephone industry: Birth, evolution, and prospects," *Canadian Economic Observer*.



Cara Williams is an analyst with Housing, Family and Social Statistics Division, Statistics Canada.

Learning on your own

by Cynthia Silver, Cara Williams and Trish McOrmond

In the 1990s, the concept of life-long learning became widely recognized as being an important social and personal goal. This term is often used to describe a strategy whereby workers aim to increase their "human capital"¹ by improving their current skills or expanding the range of skills they can offer both current and prospective employers. But the value of life-long learning extends far beyond the workplace. People have embraced learning to enrich their ability to function within their communities and homes, to deal with family issues and to enjoy their leisure time. Increasingly, people are also being encouraged to view life-long learning as a means of combatting the mental deterioration associated with aging.

As an alternative to traditional courses in a classroom setting, many Canadians choose to develop their skills through informal training on their own time. Indeed, for many subjects and skills, this is the only practical option. This approach is sometimes called informal or self-directed learning. Participants can make the activity as structured as they wish, invest as much or as little money as they want, and fit it into their schedule when it best suits them. Informal learning, however, is not accounted for by most statistics on education and training. This article uses new data from the 1998 General Social Survey (GSS) on time use to provide information about people who increase their human capital by learning informally.

A popular alternative to formal learning

The 1998 GSS shows that informal learning is a popular alternative to formal learning. While 15% of Canadians aged 25 and over (3.1 million) reported that they took a course or training session in the last month, almost double that number (about 6 million) reported that they had engaged in an informal learning activity during the previous month. Most of those who learn informally (89%) pursued only one subject. And while the subject matter studied informally by Canadians is diverse, seven broad thematic categories are evident: computer and Internet technologies; trade-related subjects; business and finance; arts and sciences; hobbies and personal development; health and child care; and "other subjects" that fall outside the broad themes.

The 1990s were witness to the widespread adoption of the Internet and the personal computer. Not surprisingly, almost one-third of single-topic self-learners were studying computer and Internet technologies. Another 15% were studying subjects in the arts and sciences category, while over 11% were following business and financial topics. Hobbies and personal development commanded the attention of more than 16% of single-subject learners. An additional 10% were pursuing health and child care studies.

Trade-related subjects were also popular. Over 8% of single-topic self-learners were interested in construction and trades, carpentry and woodworking, or vehicle maintenance and operation.

Men and women share interest in some subjects but not all

Gender had little effect on whether someone is likely to study informally: 52% of self-learners were men and 48% were women. And several major subject areas — computer skills (including Internet), business and financial services, and arts and sciences — ranked high among both men and women. There is no question, however, that some subject matter areas were more appealing to men and others to women.

To some degree, the areas studied by women and men reflected traditional divisions of labour. For example, 17% of female single-topic self-learners studied health and child care, compared with just 3% of men. On the other hand, male learners dominated the study of trade-related subjects with 14% participation, compared with less than 2% for women.

An equal percentage (15%) of male and female self-learners studied subjects in the arts and sciences; however, within this category, more men than women studied natural sciences and the environment, while a larger percentage of women studied education and teaching. This pattern is consistent with the gender differences observed in both university enrolments and the workplace. The study choices of self-learners may indicate an intrinsic interest in these topics, or reflect membership in particular professions, or both.

1. Human capital is defined as the skills, capacities or abilities possessed by an individual, which permit him or her to earn income.

CST What you should know about this study

This article is based on data from the 1998 General Social Survey (GSS) on time use. The survey interviewed almost 11,000 Canadians aged 15 and over in the 10 provinces and provided information about how people spent their time during one day. In addition to information about time use, the GSS also collected data about learning activities conducted during the month preceding the survey.

Respondents were classified as self-learners if they answered "yes" to the following question:

"Many people improve their knowledge of a subject or upgrade their skills on their own instead of taking a course. They read books, watch television programs, use a computer, or talk to someone with the necessary expertise. Have you undertaken any of these activities during the past month?"

Self-learners were then asked to specify what they were learning (up to a maximum of four topics), their method of learning (for example, book, computer, or human interaction), and how much time they had devoted to this learning activity in the past month. Twenty-seven topics were defined as areas of study, ranging from child care to natural sciences and work-related issues. Because of sample size limitations, these subjects have been grouped into seven categories. Discussion of categories is based on responses of those adults who reported informal learning in only one subject.

Self-learning falls into seven broad categories

1. Computer and Internet technologies;
2. Trade-related subjects: includes construction and trades; carpentry and woodworking; and vehicle maintenance;
3. Business and finance: includes business skills, accounting, taxation, investment and other financial subjects;
4. Arts and sciences: includes environment and nature; natural sciences; social sciences; education and teaching; languages and literacy skills; history; current affairs and politics; fine arts; and music;
5. Hobbies and personal development: includes personal development; spirituality and religion; crafts and hobbies; cooking, food and beverages; sports; gardening; general knowledge and work-related subjects;
6. Health and child care;
7. Other: includes the study of agriculture and other subjects not elsewhere specified.

The definition of self-learning used in this study differs from some of the more formal definitions of self-directed study in which individuals in a course are working at their own speed but their work is monitored and evaluated by an outside party.

CST Men and women self-learners have diverse interests

% of single-topic learners

Subject area	Women	Men	Total
Child care and health	17	3*	10
Arts and sciences	15	15	15
Hobbies and personal development	19	15	16
Computers and Internet	28	33	31
Trade-related subjects	2*	14	8
Business and finance	9	13	11
Other	4*	4*	4

* High sampling variability.

Source: Statistics Canada, General Social Survey, 1998.

Books are still the key teaching tool

People can use a variety of methods to teach themselves, and many use a combination of tools. By far the most popular means of learning was with

books, a method chosen by 68% of all informal learners. Books were most popular with the arts and sciences self-learners, with 81% using them. Even though people teaching them-

selves about computers were the least reliant on books, over half (55%) still used them.

About one-half of learners acquired their information the old-fashioned way — directly from other people. This approach to learning is the oldest way of transferring knowledge and skills. Human interaction was particularly important for hobbies, leisure and personal development topics and business and financial skills, with about 55% of those studying these subjects using this method.

Not surprisingly, the computer was used by most (78%) of the people who studied computers or Internet technologies. But the Internet also opened up a broad range of subjects to other learners, especially people teaching themselves about arts and sciences. It is interesting to note that men were more likely to use electronic tools as

at least part of their strategy for self-learning² — over 46% of male self-learners used a computer, compared to 35% of females. Women relied more on the traditional method of reading books (71% of women versus 65% of men) as part of their learning strategy.

Self-learners invest time in their subjects

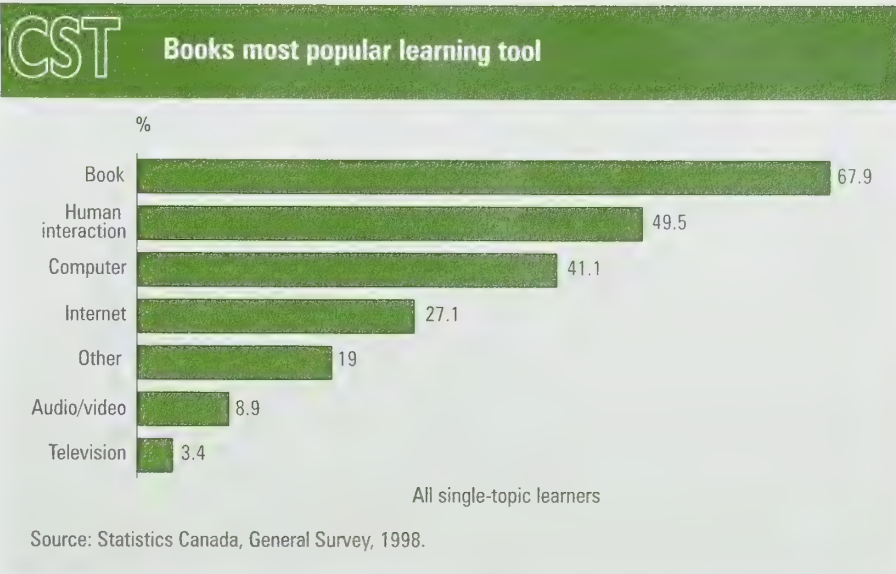
The intensity of interest in a subject might be measured by the amount of time learners devoted to its study. Informal learners committed an overall average of 18 hours during the reference month.³ Men spent slightly more time on self-learning activities (19 hours) than women, who spent about 17 hours on their subject. This average, however, varied considerably across topics; for instance, while women and men studying business and financial services averaged 22 hours a month, they only spent 15 hours on child care and health. Women and men also reported considerable difference in hours committed to self-learning, even if they were studying the same topic: men spent 7 hours more than women learning computer or Internet technologies, for example, while women dedicated a whopping 12 more hours than men on business and financial services.

Summary

Canadian adults seem to be sold on the importance of life-long learning. Learning is not confined to the classroom or to a period in a person's life. Even when adults don't enroll in formal classes or workshops, they are more than happy to study on their own. The 1998 General Social Survey

2. It was possible for respondents to report more than one method to aid in learning. For example, respondents could use both the computer and human interaction to learn a topic.

3. Excludes respondents who reported studying multiple subjects.



found that about one-third of Canadians aged 25 and over engaged in some type of informal-learning activity in 1998. These individuals are committed to their studies, averaging 18 hours of study each month.

In today's information age, it is not surprising that computer and Internet studies were the most popular topics for self-learners; however, there is great diversity in the type of subjects self-learners investigate. Men and women share some interest in topics such as hobbies and personal development, computers and the Internet, but many of the gender differences found in formal studies persist in informal learning. In terms of methods used to learn

subjects, books remain the most popular means for acquiring new skills and information, but there is no doubt that computers and the Internet have opened doors for many self-learners, allowing for access to unprecedented volumes of information.



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Homicide rate lowest since 1967

The national homicide rate has declined to its lowest since 1967 at 1.76 per 100,000 population. Nearly one in three homicides involved firearms. Almost 90% of persons accused of homicide and 67% of homicide victims were male. Approximately 80% of spousal homicide victims were female.

The number of youths (aged 12 to 17) accused of homicide were down from 57 in 1998 to 45 in 1999, a drop of 21%. Despite annual fluctuations, the rate of youths accused of homicide has remained relatively stable over the past decade.

Thirty-six children under the age of 12 were killed in 1999, down 35% from 55 in 1998. Parents were found responsible in almost 80% of such murder cases solved by police.

Canadian Centre for Justice Statistics
Juristat

Vol. 19, no. 10
Statistics Canada Catalogue
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Happily ever after?

Divorce rates increased more than 2% in 1998, at a rate of 228 per 100,000 population. This was

the first increase in four years. Based on these rates, over 1/3 of marriages are expected to end in divorce. Rates of divorce are the highest in the Yukon and lowest in the Northwest Territories.

The average age for a divorce rose for both men and women by 3 years between 1989 and 1999 to 42 and 39 respectively. Average length of a marriage ending in divorce increased from 13 to 14 years in the same time period.

Custody orders of children were an issue in 31% of divorces in 1998. Custody was granted to the mother 60% of time, to the father 10% and joint custody 30%.

Health Statistics Division
Divorces - Shelf tables

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All for one... Unionization

During the first half of 2000, union membership increased to 3.7 million, up 100,000 from a year earlier, with most of the increase in the private sector. Newfoundland (39%) was the most unionized province, with Alberta (21%) being the least. The chances of not belonging to a union were highest among the young, workers with short job tenure, persons with more education and those in the managerial and professional positions.

In 1999, the average hourly wage of full-time unionized workers was \$19.43 while that of their non-unionized counterparts was \$15.99. Full-time female unionized workers' hourly wage was 90% of that of their male peers, but part-time female unionized workers made 9% more than their male counterparts.

Perspectives on Labour and Income

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University tuition fees on the rise

Average university tuition fees across the country increased 3% for undergraduate arts students in 2000-01. Saskatchewan and Nova Scotia undergraduate arts students faced the biggest increase (8%) while students at public institutions in Manitoba were the only ones to see a reduction in their tuition fees (due to a 10% rebate from the provincial government). Over the past decade, the average cost per undergraduate arts student in Canada increased 126%. Provincially, Alberta had the greatest increase (209%), and British Columbia, the smallest (46%) over the 10-year period. All tuition costs are reported in current dollars.

The most dramatic undergraduate tuition increases in 2000-01 were

in the law and music programs, at 18% and 11% respectively. However, tuition fees in the most expensive programs, dentistry (\$7,678) and medicine (\$5,975), increased by 6%.

At the graduate student level, fees increased almost 13% in that same year.

Culture, Tourism and the Centre for Education Statistics
(613) 951-1503



Dollars and cents

Median total income in Canada increased an average of 3% to \$20,100 (after inflation) between 1997 and 1998. The largest increase in median total income in census metropolitan areas (CMAs) was over 4% in Calgary. The highest median incomes were in Oshawa and Ottawa-Hull at \$25,900 and \$25,200 (2% and 3% change), with the lowest in Trois-Rivières and Chicoutimi-Jonquière, at \$17,100 and \$18,200 (3% and 4% change).

Small Area and Administrative Data Division

Neighbourhood income and demographics profiles

Statistics Canada Catalogue
no. 13C0015

Labour force income profile
Statistics Canada Catalogue
no. 71C0018 and

Economic dependency profile
Statistics Canada Catalogue
no. 13C0017

SOCIAL INDICATORS

	1991	1992	1993	1994	1995	1996	1997	1998	1999
INCOME¹									
<i>Average market income</i>									
Economic families	51,258	50,565	49,329	50,445	50,641	51,307	52,766	55,224	--
Unattached individuals	20,205	20,416	19,828	19,805	20,097	19,863	19,861	20,758	--
<i>Average total income (includes transfer payments)</i>									
Families	58,131	57,791	56,615	57,657	57,585	58,415	59,659	62,116	--
Unattached individuals	25,165	25,497	25,073	25,284	25,193	24,979	24,970	25,784	--
<i>Average income tax</i>									
Families	11,531	11,143	10,887	11,358	11,425	11,500	11,821	12,489	--
Unattached individuals	4,547	4,536	4,503	4,613	4,588	4,490	4,388	4,718	--
<i>Average after-tax income</i>									
Families	146,600	46,648	45,728	46,300	46,159	46,915	47,838	49,626	--
Unattached individuals	20,618	20,960	20,570	20,671	20,605	20,488	20,582	21,067	--
<i>Average after-tax income by quintiles for families</i>									
Lowest quintile	17,797	17,505	17,416	17,816	17,785	17,267	17,198	17,662	--
2nd	31,064	31,198	30,217	31,068	30,660	30,596	30,789	31,754	--
3rd	42,215	42,588	41,392	42,309	41,594	42,415	42,737	44,019	--
4th	55,179	55,654	54,561	55,047	54,624	55,783	56,689	58,533	--
Highest quintile	86,758	86,303	85,068	85,273	86,146	88,528	91,802	96,175	--
<i>Earnings ratios</i>									
Dual-earners as % of husband-wife families	61.6	61.3	60.3	60.4	60.5	61.5	63.4	63.6	--
Women's earnings as % of men's (full-time full-year workers)	69.7	71.9	72.3	69.8	73.1	73.0	69.6	72.2	--
<i>Prevalence (%) of Low Income After Tax (1992 Low Income Cut-offs)</i>									
Families with head aged 65 and over	2.6	2.6	4.0	2.5	2.1	3.0	3.7	3.6	--
Families with head less than 65	10.4	10.4	11.2	10.8	11.4	12.2	11.4	9.9	--
Two-parent families with children	7.8	7.2	8.8	8.4	9.8	10.1	9.5	7.3	--
Lone-parent families	45.3	41.1	41.3	42.2	42.4	45.8	42.3	38.1	--
Unattached individuals aged 65 and over	26.9	24.3	26.3	20.7	21.1	23.7	21.6	20.8	--
Unattached individuals less than 65	32.2	32.7	32.7	34.0	34.0	36.0	36.1	33.9	--
FAMILIES²									
Marriage rate (per 1,000 population)	6.1	5.8	5.5	5.5	5.4	5.3	5.1	--	--
Crude divorce rate (per 1,000 population)	2.7	2.8	2.7	2.7	2.6	2.4	2.2	2.3	--
Total number of families ('000)	7,482	7,581	7,679	7,778	7,876	7,975	8,047	8,117	8,142
% of all families									
Husband-wife families	87.0	86.7	86.4	86.1	85.8	85.5	85.2	84.9	84.6
with children	51.9	51.7	51.4	51.1	50.9	50.6	50.4	50.1	49.9
without children	35.1	35.1	35.0	35.0	34.9	34.9	34.8	34.7	34.7
Lone-parent families	13.0	13.3	13.6	13.9	14.2	14.5	14.8	15.1	15.4
% of husband-wife families									
with children	59.7	59.6	59.5	60.2	60.2	59.2	59.1	60.2	59.0
all children under 18	67.4	67.0	66.6	66.2	65.8	65.4	65.0	64.6	64.2
Females as % of lone parents	82.4	82.6	82.7	82.8	83.0	83.1	83.2	83.3	83.4

1. All incomes are 1998 constant dollars. An economic family consists of two or more people who live in the same dwelling and are related by blood, marriage, common-law or adoption.

2. A census family is referred to as immediate or nuclear family consisting of married or common-law couples with or without children, lone-parents and their children, whereas a child does not have his or her own spouse residing in the household.

Sources: *Income in Canada* (Catalogue no. 75-202-XPE), *Income Trends in Canada* (Catalogue no. 13F0022XCB), *Annual Demographic Statistics* (Catalogue no. 91-213-XPB), and *Divorces* (Catalogue no. 84F0213XPB).

Lesson plan for "You snooze, you lose? — Sleep patterns in Canada"

Objective

- ☐ To understand the need and importance of sleep for Canadians

Method

1. Calculate the average length of sleep for the class last night. Compare it with the results in the article. Do girls in the class get the same amount of sleep as boys?
2. What was the average length of time it took to fall asleep? How many in the class woke up without the use of an alarm clock or someone waking them up? How many in the class sleep longer on the weekends?
3. The article discussed major industrial accidents that have occurred as a result of sleep deprivation, but there are less severe effects that may happen as a result of lack of sleep. Think of your own experiences of when you have not had enough sleep. Discuss the incident and how you felt. Did you have the energy you needed? Were you alert?
4. Discuss the importance of sleep to your health. Survey students to find out how many cut back on sleep when they need more time. Does the fast pace of our lives contribute to sleep problems?
5. Our bodies go through a biological rhythm called circadian rhythm. There are two low periods in this cycle. The first low occurs between 1 and 4 a.m. and the second occurs 12 hours later between 1 and 4 p.m. Keep track of any daytime sleepiness that you have. After lunch do you often feel sleepy? What can you do to feel more alert during this time?
6. Keep track of the number of hours you sleep over three nights. Do you often wake up in the middle of the night? Did you calculate a sleep debt for these nights?

Using other resources

- ☐ For other lesson plans for Social Studies or Health and Physical Education courses, check out the Statistics Canada web-site, <http://www.statcan.ca> under Education Resources. Select Teaching resources, then Lesson plans. There are more than 120 lessons available, listed by level and subject, including over 30 lessons for health and physical education courses. E-STAT, now free to Canadian education institutions at <http://estat.statcan.ca>, contains a wealth of data from the World Health Organization survey on the health behaviour of school-aged children, including children having difficulty getting to sleep, by age and country. You can find these data on E-STAT under the Topic 'Health' in the CANSIM database, matrices 18037-18039.

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Canadians in the spotlight



Plugged into the Internet

by Paul Dickinson and Jonathan Ellison

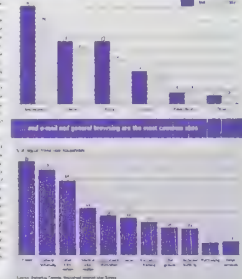
How many Canadians are plugged into the Internet? The answer is: more and more. According to a new survey by Statistics Canada, the number of Canadians who use the Internet has increased significantly in the past few years. The survey found that in 1998, 15.5% of Canadians aged 15 and over used the Internet, up from 10.5% in 1997. This increase is particularly notable among younger Canadians, with 25.5% of those aged 15 to 24 using the Internet in 1998. The survey also found that the most common reasons for using the Internet were to check e-mail (45%), search for information (35%), and use the Internet for work or school (25%).

What you should know about this study

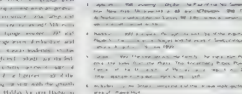
Statistics Canada conducted the Household Telephone Survey (HTS) in October 1998. The survey was designed to provide information on the use of the Internet by Canadians. The survey was conducted using a random sample of households across the country. The survey included questions about the frequency of Internet use, the reasons for using the Internet, and the types of activities performed online. The survey also included questions about the characteristics of Internet users, such as age, education, and income.

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and e-mail and general browsing are the most common uses



Internet use by age group



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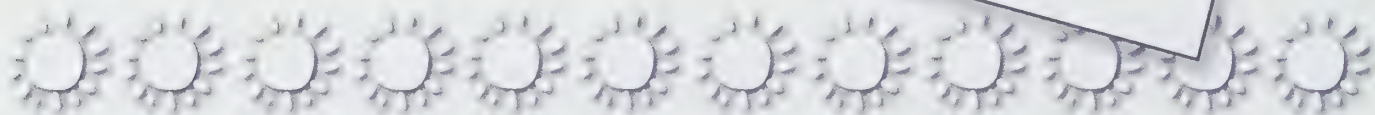
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CANADIAN SOCIAL TRENDS

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Patterns of volunteering over the life cycle

by L. Kevin Selbee and Paul B. Reed

This article has been adapted from *Patterns of volunteering over the life cycle*, one in a series of reports from Statistics Canada's Nonprofit Sector Knowledge Base Project.

A teenager working in a hospital gift shop after school, a parent coaching their child's soccer team, a senior sitting on the board of directors of a community social service agency — these are some of the faces of volunteering in Canada today. A significant proportion of

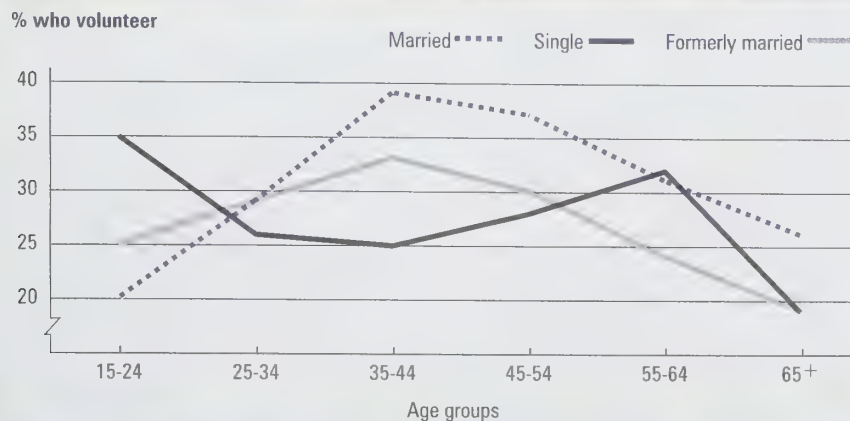
Canadian adults offer their time and energy to work as volunteers.

Volunteering varies in orderly patterns as people move through the different circumstances of their lives. Generally, it rises from a low in teenage years through early adulthood to a peak in the late 40s and 50s and declines thereafter. However, these overall, age-specific rates mask some important differences, which emerge when such life events as getting married, having children and working are considered. Using data from the 1997 National Survey of Giving, Volunteering and Participating (NSGVP), this article probes how different mixes of social factors increase or diminish the likelihood that a person will be a volunteer at different stages of the life cycle. It also considers the relationship between social connectivity and volunteering.

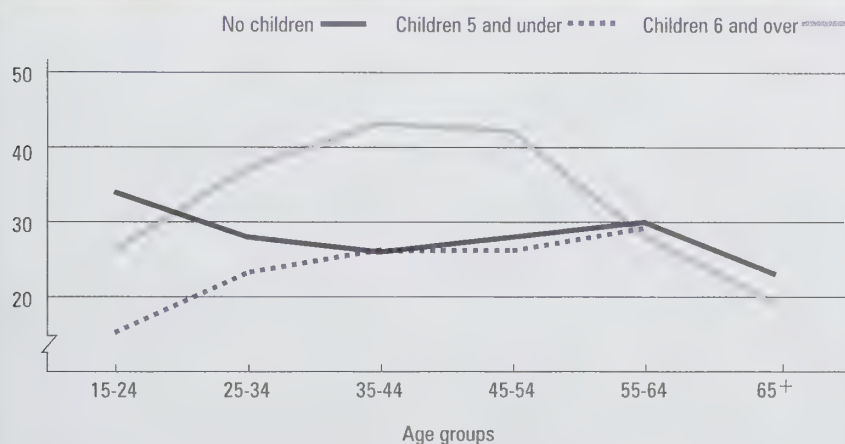
Marriage and children are key influences on volunteering

The formation and dissolution of partnerships are important parts of the life cycle that affect many of the subsequent choices people make. In general, married individuals tend to volunteer more than those who are single or formerly married. The only exceptions occur in the 15- to 24-year-old group, in which singles were more likely to volunteer than married individuals (35% compared with 20% in





... as are those with children 6 years and over in the home



Source: Statistics Canada, National Survey of Giving, Volunteering and Participating, 1997.

1997) and in the 25- to 34-year-old group, in which people volunteered at equal rates regardless of their marital status. While married and formerly married people volunteer most between the ages of 35 and 44, singles in this age tend to volunteer the least.

Perhaps even more than getting married, having children brings changes with far-reaching consequences. Once people become parents, their obligations, expectations, roles and outlook on life often change quite dramatically. Not surprisingly, then, the presence and age of children also affect the likelihood that individuals will volunteer. Overall,

having young children (age 5 and under) reduces, while having older children (age 6 and over) increases, the probability of volunteering.

People without children volunteer at the same rate as singles, and those with older children volunteer at the same rate as married individuals. Of course, married people may volunteer at higher rates than singles because they are more likely to have children, whose various educational and recreational activities get parents involved. Indeed, when the presence and age of children are held constant, there are no significant differences in volunteering rates for marital groups at most ages.

Three important exceptions do, however, exist. Among people with no children in the home, single 15- to 24-year-olds and married seniors were significantly more likely to volunteer than other marital groups. And among people with older children, married parents between 25 and 64 were consistently leaders in volunteering.

Over one-third of 15- to 24-year-olds without children volunteer

Multi-dimensional cross-tabulations were used to further identify factors that influence rates of volunteering.¹ The first question addressed was why single childless 15- to 24-year-olds volunteer more than their married counterparts. Results indicated that religion was the only factor that could explain the difference in rates. Furthermore, the results were significant only for Protestants (51% of singles and 24% of married individuals volunteered) and Catholics (31% versus 20%, respectively). Among people with no religious affiliation, rates of volunteering were the same regardless of marital status. Results were inconclusive for those of other religions.

It could be that these young married Protestants and Catholics volunteer less than their single counterparts because, being at an early stage of their marriage, they are more focussed on their own lives than the affairs of the larger community. Indeed, when 15-to 24-year-olds' involvement in the community is examined, it becomes clear that single Protestants and Catholics tended to have higher community participation

1. The variables examined included education (high school or less, some postsecondary, and university or more), labour force status (working full-time, part-time, or not in the labour force), religion (no religion, Catholic, Protestant and other religions), gender, and student status.

Data for the analysis in this article come from the 1997 National Survey of Giving, Volunteering and Participating (NSGVP) that was conducted in private households in the 10 provinces. The NSGVP interviewed 18,301 Canadians aged 15 years and over, of whom 31% reported that they had given time as an unpaid volunteer to a non-profit organization at least once during the preceding 12 months.

Multi-dimensional cross-tabulations were used to arrive at rates of volunteering across age groups and a method called analysis of variance was employed to test for differences between groups.

Single: never married.

Married: legal marriage or common-law union.

Formerly married: individuals who are widowed, divorced or separated.

Individuals with older children: those who have at least one child aged 6 or over. Younger children may or

may not be present in these homes.

Indices of community participation

Civic participation: membership in political organizations, religious groups, service clubs and other community organizations.

Social participation: the frequency with which a person interacts with family and friends in various social settings.

Frequency of church attendance: the number of times per year the individual attends religious services.

Number of organizations: the number of organizations a person belongs to.

Years of residence in the community: proxy for the extent to which a person becomes integrated into or connected with their community over time.

Informal helping: supporting others in ways that do not involve organizations.

rates than those who were married.² Singles were equally, or more, active in community organizations than their married counterparts: they were more active socially with family and friends, went to church much more often, volunteered for twice as many organizations, and had lived longer in their communities.

Research has repeatedly shown that the more varied a person's involvement in their community, the greater the likelihood they will perform volunteer work.³ "Social connectivity" (or community involvement) reflects the scope and intensity of the ways people interact with other individuals and groups, be they family, friends, neighbours, store staff, coworkers, acquaintances, or strangers. Interactions with individuals can be described as either socially proximate (those with family members) or socially extended (those with people at one's workplace or others who are not family). Extended connectivity entails awareness of, and attention to, a range

of individuals and groups who extend beyond one's social world of immediate family and neighbours.

Being connected may lead to increased volunteering in a number of ways: other people's need for help becomes more apparent, the cause of organizations becomes more visible, more acquaintances are volunteers and, perhaps most important, one gets asked to volunteer more often. There is ample evidence that being asked is the main way people become volunteers and this happens most often among people who are known to, or in contact with, one another. It is reasonable, then, to conclude that single 15- to 24-year-olds' higher rate of volunteering is related to their more extensive involvement in activities in the community.

Nearly one-third of married seniors volunteer

The other group of people without children at home who have significantly higher volunteer rates than

others was married seniors 65 years and over. Both men and women in this age group volunteered at higher rates than those who were not married.⁴ What could account for this? As in the case of 15-to 24-year-olds, religion is the only significant factor. Among seniors in 1997, married Protestant and Catholic men and married women of other religions had volunteering

2. Six indices of community participation examined are: civic participation, social participation, frequency of church attendance, number of organizations volunteered for, years of residence in the community, and the number of different types of informal helping done in the past year. (See "What you should know about this study" for definitions.)
3. Wilson, J. and M.A. Musick. 1997. "Work and volunteering: The long arm of the job." *Social Forces*. 76: 251-272.
4. In analyzing this group, the single (never married) are combined with formerly married (widowed, divorced and separated) to create a single group of not-married individuals.

rates significantly higher than their not-married counterparts. No significant differences in rates of volunteering were found between married and not-married women of Protestant and Catholic denominations and those with no religious affiliation.

Seniors who volunteer more were more likely to be socially connected. And indeed, senior married Catholic and Protestant men, and senior married women of other religions, had significantly higher rates of community participation than their not-married counterparts — on all six indicators for Catholic men and on three of six for Protestant men and women of other religions.

Over 40% of married parents with older children volunteer

Through involvement in school and recreational activities, children aged 6 and over often draw their parents into volunteering. But in the 25- to 64-year-old group with older children, married parents volunteer at rates significantly higher than those who are lone parents. This is hardly surprising: with no partner to share the other demands on their time, lone parents likely have less time and energy to devote to volunteering.

Testing for the reasons behind this pattern reveal the by now familiar result: religion alone influenced volunteering. Only married Catholic and Protestant parents volunteer at significantly higher rates than lone parents in these denominations. But while married and not-married men show no differences in rates of volunteering, married Catholic and Protestant women are significantly more likely to volunteer than their not-married counterparts. Once again, the difference can be linked to social connectivity.

Five of six indices for both Catholic and Protestant married women with older children show higher levels of



Among people with older children, married 25- to 64-year-olds were most likely to volunteer

	Age group	Single	Married	Formerly married
		%		
No children	15-24	35	23	--
	25-34	27	29	34
	35-44	25	26	33
	45-54	26	28	30
	55-64	31	31	26
	65+	19	26	19
Children 6 and over	15-24	--	--	--
	25-34	28	38	30
	35-44	22	45	34
	45-54	--	43	30
	55-64	--	30	16
	65+	--	22	15

-- Sample size too small to produce reliable estimate.

Note: Numbers in bold are statistically significantly different from at least one other row entry.

Source: Statistics Canada, National Survey of Giving, Volunteering and Participating, 1997.



Among 15- to 24-year-olds with no children, one in two single Protestants offered their services as volunteers

	Single	Married
	%	
No religion	30	32
Catholic	31	20
Protestant	51	24
Other religions	35	--

-- Sample size too small to produce reliable estimate.

Note: Numbers in bold are statistically significantly different from the other row entry.

Source: Statistics Canada, National Survey of Giving, Volunteering and Participating, 1997.



Among 25- to 64-year-olds with older children, more than 6 in 10 married Protestant women volunteered

	Women		Men	
	Not married	Married	Not married	Married
	%			
No religion	39	46	23	33
Catholic	21	37	26	37
Protestant	35	62	50	54
Other religions	35	26	--	27

-- Sample size too small to produce reliable estimate.

Note: Numbers in bold are statistically significantly different from the other row entry within gender.

Source: Statistics Canada, National Survey of Giving, Volunteering and Participating, 1997.

community participation than for lone mothers. This same relationship holds for other groups as well: where levels of connectivity tend to be equal, the likelihood of volunteering tends also to be equal.

Full-time workers and the jobless volunteer at similar rates

Another component of the life cycle centres on a person's job and stage of career development. The typical progression begins with schooling, at times combined with part-time work, followed by full-time work in the labour force or unpaid work outside the labour force, and then retirement from the paid labour force.

Those employed full time and those with no jobs volunteer at roughly similar rates; significant differences occur only between the ages of 25 and 44. On the other hand, the rate for part-time workers and students combined⁵ are significantly higher than both full-time worker and no-job rates at all ages. Marital status, presence of children, education, income, occupation and even religion do not explain these differences. Examining levels of community participation clarifies the picture; the majority of connectivity indices — four out of six — are higher for the part-time/student group.

Summary

Differences in the rate of volunteering are associated with marriage, children and employment, three of the defining components of the life cycle. Married individuals volunteer more than those who are single, divorced, widowed or separated. Individuals with children 5 years and under

volunteer the least, those with children aged 6 and over volunteer the most, and those without children fall somewhere in between. Students and part-time workers tend to volunteer more than those who work full-time or those who are not in paid employment.

When data are examined more closely, however, these patterns are not as clear and it becomes apparent that there are important age-related differences in how life cycle circumstances affect volunteering. For example, patterns of volunteering by marital status differ across age groups and are influenced by the presence and age of children in the home. In the case of people without children, marital status affects volunteering only for young adults and seniors. For those between the ages of 25 and 64, marital status has no effect on volunteering if there are no children in the home; if there are children over the age of 6, married individuals are more likely to volunteer than those who are not married.

Additional patterns exist, but the important point is that a complex interplay of factors encourages or inhibits volunteering depending on the combination of an individual's life cycle circumstances. Nor are patterns across the full life cycle entirely due to differences in basic

socioeconomic characteristics such as religion, education or income. Religion makes a difference for some, while education and income do not affect the patterns in any consistent or pronounced way. The various conditions and factors overlap in numerous ways and how, in combination, they affect volunteering has not been identified with full precision.

Finally, the link between volunteering and levels of community participation shows that, among groups of individuals, who are often quite different, higher rates of volunteering are fairly consistently associated with higher levels of community participation of various kinds. There may be some benefit from a more thorough examination of the link between social connectivity and volunteer behaviour.



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5. The student and part-time rates were combined because after age 25 the student rate is much like that of the part-time group, and because the number of students for cohorts 34 years and over becomes very small.



We feel safe

Most Canadians (91%) were satisfied with their safety from crime in 1999, up from 86% in 1993, but they failed to report 60% of crimes to police in 1999, mainly because they did not consider them sufficiently important. In 1993, 56% of crimes went unreported. High satisfaction with police performance was largely unchanged from 1993, and although satisfaction with the criminal courts improved over the same period, many people rated the courts' speed and helpfulness to victims (41% and 35% respectively) as poor. Three factors linked to the risk of becoming a victim of sexual assault, robbery or theft of personal property are age, place of residence and number of evening activities. Youths aged 15 to 24 had a risk rate twice as high as the national average; urban dwellers had a rate 40% higher than the rural population; and people who engaged in 30 or more evening activities per month had four times the risk of people with less than 10 evening activities.

Canadian Centre for Justice Statistics
Juristat, Vol. 20, No. 10
Statistics Canada
Catalogue no. 85-002-XPE
(Internet: 85-002-XIE)
1 800 387-2231



Institutional residents

Between 1994 and 1998, the health of people living in long-term care institutions declined, but three-fifths of them still reported their general health as comparable to or better than in 1994. Four out of five residents had a long-term disability, and two-thirds had more chronic health problems in 1998 than in 1994. Osteoporosis, heart disease and dementia were the most common newly reported conditions. Two-thirds of residents said the frequency with which they saw close friends outside the institution did not fall over the four years, and four-fifths maintained at least the same level of contact with a family member over the period.

Health Statistics Division
Client Custom Services
(613) 951-1643



To serve and protect

Total costs for police services in 1999 were \$6.4 billion (\$210 per capita), about 1% more than in 1998 after adjusting for inflation. As of June 2000, there were 182 officers per 100,000 population, a rate that has remained largely unchanged since 1995. Provincially, Quebec and Manitoba had the highest rate at 188 and 187 per 100,000, respectively; Prince Edward Island

and Newfoundland had the lowest, at 148 and 143. Among the census metropolitan areas, Thunder Bay had the highest rate (196 per 100,000), and Sherbrooke the lowest (110). From 1990 to 2000 the number of female officers has doubled from 6% (3,573) to almost 14% (7,658) of all officers. The proportion of female officers was highest in British Columbia (17%) and lowest in the Atlantic provinces (10%).

Canadian Centre for Justice Statistics
Police Resources in Canada, 2000
Statistics Canada
Catalogue no. 85-225-XPE
(Internet: 85-225-XIE)
CANSIM matrix 301,
table 00130101
1 800 387-2231



Hammer technology

In 1999, Canadian homeowners spent a total of \$13.6 billion on home repairs and renovations; two-thirds of this total was spent on contracting out and one-third on materials purchased separately. The national average per household was \$1,810, with the highest spenders in British Columbia (\$1,970) and the lowest in Manitoba (\$1,290). Across Canada, rural homeowners were more likely to be "do-it-yourselfers," devoting half of their repair and renovation budget to materials compared to less than one-third for urban owners. At \$2,110, wife-husband families with children spent the most,

almost 60% of which was devoted to additions, renovations and new installations. In contrast, persons living alone and lone parents spent over 50% of their budgets on repairs, maintenance and replacing equipment.

Income Statistics Division
Homeowner Repair and Renovation Expenditure in Canada, 1999
Statistics Canada
Catalogue no. 62-201-XPE
(Internet: 62-201-XIE)
1 888 297-7355



The part-time choice

Seventy-three percent of the 2.7 million Canadians who worked part-time in 1999 did so because they chose to. These voluntary part-time workers were most often aged 15 to 24 (40%) or women between 25 and 54 (40%). The three most common reasons for choosing a shorter work week were school, personal choice and family responsibility. All part-timers reported much lower levels of work stress (10%) than full-time workers (40%). As well, part-time workers were more satisfied with the balance between job and home life (83%) than full-timers (72%).

Labour and Household Surveys Analysis Division
Perspectives on Labour and Income, Vol. 1, No. 2
Statistics Canada
Catalogue no. 75-001-XPE
(Internet: 75-001-XIE)
(613) 951-6890

Enjoying work: An effective strategy in the struggle to juggle?

by Judith A. Frederick and Janet E. Fast

Many Canadians feel they just don't have time to accommodate both paid and unpaid work in a busy schedule. They may also feel that neither their family nor their job is getting their best. The resulting stress is a concern for employees and employers alike since it may lead to burnout, poor health, dissatisfaction with life at home or on the job, lower productivity and employee turnover.¹ People with the most intense demands on their time (for example, employed mothers) are under the most stress.²

1. Koeske, Gary F., Stuart A. Kirk and Randi D. Koeske. 1993. "Coping with job stress: Which strategies work best?" *The British Psychological Society*. 319-335.

2. Frederick, Judith A. 1995. *As Time Goes By... Time Use of Canadians, General Social Survey, 1992*. Statistics Canada Catalogue no. 89-544E.

CST What you should know about this study

The data for this article were drawn from the 1998 General Social Survey (GSS) on time use. Interviews were conducted over a 12-month period with more than 11,000 Canadians aged 15 and over living in private households in the 10 provinces. Respondents were asked to record their activities, and the amount of time spent on those activities, in a 24-hour diary. They were also asked whether they enjoyed doing certain activities, including their paid work and housework, and to describe how they perceived the balance between their work and family responsibilities, time pressures and their life as a whole.¹

This study is based on the data collected from respondents with paid employment. Logistic regression analysis was used to estimate how time spent on paid work and housework and enjoyment of these activities were related to the three quality-of-life indicators. Models were developed separately for women and men because, despite similar attitudes to work, women and men experience work in different ways.

Paid work: employment in a job or business from which the respondent earned wages, salaries or income from self-employment.

Housework/house cleaning: indoor and outdoor cleaning, laundry, ironing, mending.

Time crunch: respondent answered "yes" to 7 of 10 questions designed to measure whether people perceive themselves as having insufficient time during the day to accomplish what they need to do.

Satisfied: respondent is very satisfied or somewhat satisfied with the balance between work and family lives and with her or his life in general.

Not satisfied: respondent is somewhat dissatisfied or very dissatisfied.

1. Parents were not asked whether they enjoyed providing child care; consequently, no assessment could be made of how this task affected parents' perceived quality of life.

However, there are big differences in the levels of stress reported by different groups of adults. Because stress is so problematic, understanding why people in similar situations experience different levels of stress is important. One explanation offered by research is exercising control over one's environment, which can buffer the negative effects of stress. But there is another possible answer: whether people like what they do. Some research suggests that people who enjoy the work they do tend to feel less stress and report a better quality of life than people who do not.³ Does enjoying the things we do buffer the effect of intense demands on our lives?

This article uses information from the 1998 General Social Survey (GSS) on time use to determine whether enjoyment of paid work and household work influences our perception of quality of life as measured by three indicators: the perceived balance between work and family; perceived time pressure; and general life satisfaction.

People happier with fewer hours of work

Nearly three-quarters of employed Canadians reported that they were satisfied with the balance they had achieved between work and family — 73% of women and 74% of men. About one-quarter can be described as time-crunched, although more women (27%) than men (22%) felt this way. Few workers reported that they were not satisfied with their life overall, at only about 9% of women and 7% of men.

Cutting back on time spent on paid work may help to alleviate the stress associated with increased home and family responsibilities.⁴ The 1998 GSS data confirm that women who were satisfied with the balance between their paid work and their family demands spent less time on the job (34 hours) and on housework (6 hours) than those who were dissatisfied (38 hours and

CST Women who are satisfied with their quality of life average less time on household work				
	Women		Men	
	Paid work	House cleaning	Paid work	House cleaning
Average hours/week				
Work-family balance				
Satisfied	33.8	6.1	41.8	2.1
Not satisfied	37.7	6.8	49.0	2.4
Time crunch				
No	34.3	5.7	42.2	2.2
Yes	35.9	7.9	49.2	2.1
Life satisfaction				
Satisfied	35.1	6.1	43.6	2.2
Not satisfied	30.6	7.9	44.8	1.7

Source: Statistics Canada, General Social Survey, 1998.

CST			
Adults who do not enjoy their work tend to score lower on the quality-of-life indicators			
	Not satisfied with work-family balance	Feeling time crunch %	Not satisfied with life overall
Employed women			
Paid work			
Enjoy	22	23	5
Dislike	53	41	21
Housework			
Enjoy	23	28	7
Dislike	30	28	8
Employed men			
Paid work			
Enjoy	20	18	5
Dislike	44	31	14
Housework			
Enjoy	24	23	8
Dislike	26	20	7

Source: Statistics Canada, General Social Survey, 1998.

almost 7 hours, respectively). Men who were happier with this element of their lives also spent less time on paid work but their satisfaction was not affected by time devoted to household chores.

The data reveal a similar pattern when stress due to time pressures is examined. Once again, housekeeping played a bigger role for women since housework was clearly related to time crunch for women but not for men.

- Robinson, John P. and G. Godbey. 1997. *Time for life: The surprising way Americans use their time*. University Park: Penn State Press.
- Fast, J.E. and J.A. Frederick. June 1996. *Perceived time stress: The role of demands and resources*. Paper presented at the annual conference of the Canadian Association for Research in Home Economics, St. Catharines.

	Employed women			Employed men		
	Satisfied with work- family balance	Feel time crunch	Satisfied with life overall	Satisfied with work- family balance	Feel time crunch	Satisfied with life overall
Like paid work	2.7	0.5	5.2	2.1	0.6	1.9
Dislike paid work	1.0	1.0	1.0	1.0	1.0	1.0
Additional hour of paid work	*	*	1.01	0.99	1.01	*
Additional hour if enjoyed paid work	0.99	1.01	*	*	*	*
Enjoy housework	1.3	*	*	*	1.4	*
Dislike housework	1.0	1.0	1.0	1.0	1.0	1.0
Additional hour of housework	0.99	1.04	*	*	*	*
Additional hour if enjoyed housework	*	*	*	*	*	*
Professionals/upper management	0.5	1.4	*	*	*	*
Semi-professionals/technicians/ middle management	0.6	*	*	*	*	*
Supervisors/forepersons	*	*	*	*	*	*
Skilled workers/farmers	*	*	*	*	*	*
Semi-skilled workers	*	*	*	*	0.7	1.6
Unskilled workers	1.0	1.0	1.0	1.0	1.0	1.0
Married	*	*	2.5	*	1.5	1.9
Not married	1.0	1.0	1.0	1.0	1.0	1.0
Child(ren) under 19 years	0.6	1.6	*	0.6	*	*
No children	1.0	1.0	1.0	1.0	1.0	1.0
Good or excellent health	2.9	0.5	3.4	2.0	0.4	6.4
Poor or fair health	1.0	1.0	1.0	1.0	1.0	1.0

* Results not statistically significant from the benchmark group.

Note: This table presents the odds that an employed adult reports being satisfied as measured by three quality-of-life indicators, relative to the odds that a benchmark group will be satisfied (odds ratio), when all other variables in the analysis are held constant. The benchmark group is shown in boldface for each variable.

Source: Statistics Canada, General Social Survey, 1998.

The data for life satisfaction tell a different story than the other two quality-of-life indicators. Women who were satisfied with life overall spent more time on paid work and fewer hours on cleaning the house. In contrast, men were more content if they worked fewer hours for pay and spent more time on housework.

Enjoying work reduces stresses on time and on work-family balance

The question that arises now is whether a person's enjoyment of work helps to reduce the negative effects of spending more time working. To answer it, a logistic regression model

was developed to calculate the odds of a person responding positively to each of the three quality-of-life indicators as the number of hours they work increases.⁵ The results suggest that women and men could both benefit from adopting less traditional roles.

Compared with those who did not enjoy their paid work, both women and men who did enjoy it were over twice as likely to be satisfied with the balance between their job and family demands and half as likely to report being time-crunched. The same is true of overall life satisfaction, but the difference is particularly striking for women: the odds that a woman will

consider her life satisfactory were over five times higher for those who enjoyed their paid jobs than for those who did not.

Nevertheless, more hours were not necessarily beneficial to women who enjoyed their paid work. With each additional hour on the job, they were marginally less likely to be satisfied

5. Variables in the model were hours spent on paid work, hours spent on housework, enjoyment of paid work and housework, whether enjoyment of an activity mediated the effect of spending more time on it, occupation, marital status, presence of children, age and health.

with their work-family balance and more likely to feel time pressured.

Nor did enjoyment of paid work mitigate the relationship between the time men spent on the job and any of the quality of life indicators. Whether they liked their job or not, more time at paid work decreased their satisfaction with the work-family balance.

If a woman enjoyed doing housework, she was 30% more likely to be happy with the balance between work and family demands than if she did not. On the other hand, the small proportion of men who enjoyed housecleaning had 40% higher odds than other men of feeling time pressured. Nevertheless, devoting more time to housework produced lower scores on some quality-of-life measures. With each additional hour per week spent on housecleaning, the odds that women were satisfied with their work-family balance dropped 10% and their feeling of being time-crunched rose 4%.

Professional and managerial women less satisfied than other workers

Of course, other factors more particular to an individual than work hours and work enjoyment can affect perceived quality of life. For example, women in middle and upper professional, technical or managerial positions might be expected to experience less stress because they have more control over their work lives than unskilled workers. Instead, it appears that adding the demands of a professional job to family responsibilities compounds stress and dissatisfaction. When all other variables in the model are held constant, women in higher level jobs had only half the odds of being satisfied with the balance between their work and family lives, and 40% higher odds of being time-crunched than women in unskilled jobs.

Having some support and companionship at home also is important to people's quality of life. Compared with

unmarried women and men, wives (2.5) and husbands (1.9) had considerably greater odds of being satisfied with life. But while women were just as pressed for time whether they were married or single, among men husbands felt more time-crunched than single men.

All other factors being equal, both mothers and fathers had lower odds than women and men without children of feeling satisfied with their work-family balance; mothers also had 60% higher odds of being time-crunched than other women.

The idea that good health is an important determinant of emotional well-being is strongly borne out by the data. Workers who reported they were in good to excellent health had much greater odds of scoring high on satisfaction with work-family balance and life overall than those whose self-assessed health status was fair or poor.

Summary

The effect of work enjoyment on respondents' reported quality of life was universally beneficial. Both women and men who enjoyed paid work were happier with their work-family balance and with life overall and also felt less time-crunched. Similarly, enjoying housework improved women's sense of balance in their work-family relationship. These findings are consistent with Lowe's observation that quality of work is even more important to Canadians than earnings.⁶

But two of the most important findings were not expected. First, women who enjoyed their paid jobs did not report greater improvement in their quality of life as their hours increased. Second, men who enjoyed housework were more likely to be time stressed than those who did not.

Despite their increased participation in the workforce, women still retain primary responsibility for family care and household work; moreover, these tasks tend to be inflexible and unrelenting, and as such may interfere with women's

freedom to devote as much time and attention as they want to their preferred activity. Similarly, men who enjoy housework, and consequently do more of it, may be more time stressed because they have less time for their paid job to which they feel they should be fully committed. These findings are entirely consistent with an earlier study that shows women and men are equally committed to both paid work and family roles and that assigning them traditional gender responsibilities does both sexes a disservice.⁷

Greater satisfaction for both women and men might lie in a mutual exchange of tasks. It appears that women may be better off if they spent less time on housework and more on paid work, while the data clearly suggest that men would be happier if they spent less time on the job. Workplace policies that facilitate meeting simultaneous paid work and household obligations may achieve greater equity with respect to work and family demands for both women and men.

6. Lowe, Graham S. 2000. *The quality of work*. Don Mills: Oxford University Press.

7. Fast, J.E., B.J. Skrypnek and L.D. Burnstad. June 1994. *Men's and women's relative commitment to work and family roles*. Paper presented at the annual conference of the Canadian Association for Research in Home Economics, Calgary.



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From sun-up to sundown: Work patterns of farming couples

by Cynthia Silver

In most Canadian families, there is a clear demarcation between paid and unpaid work. In farming families, though, the line between paid farm work and unpaid household work is more likely to be blurred. According to the Census of Agriculture, there were 66,690 census-farms operated by husbands and wives working together in 1996. These couples accounted for 24% of all census-farm operations in Canada and about 22% of total farm production.

This article presents a brief profile of the work patterns of farming couples, that is, husbands and wives who live on and operate a farm. It examines how many hours of paid and unpaid work they do each week, and how it is shared. Couples who have no paid employment off the farm are compared to those who do work off-farm, with special emphasis on the hours of work reported by husbands and wives who work only on the farm.

Fewer than half of husband-wife farmers work only on the farm

Almost 50,000 farming couples had agricultural operations with sales over \$10,000 in 1995. Just under half of these couples (48% or 24,000) ran a "traditional" family farm in which both husband and wife worked exclusively on the farm. The remainder (26,000) were "non-traditional" farming couples, in which at least one spouse did some type of paid work off the farm; in fact, over two-thirds of them spent 20 or more hours per

week employed off-farm. Couples work off-farm for a wide variety of reasons; for example, some may hope to build their farm to a viable status by investing their off-farm earnings in land or equipment, while others could be hobby farmers.

Indeed, non-traditional farming couples seem better off financially. In 1995, about 52% of traditional farming couples made less than \$10,000 of their income from farming, and 28% had total personal income of under \$25,000. In contrast, only 18% of non-traditional couples reported a total personal income of less than \$25,000, even though 67% earned under \$10,000 from farming.

The income reported by traditional farming couples raises some interesting questions about the size of operation required for a family to make a living. In 1995, 37% made more than half of their total personal income from farming, while 39% made no farm income because their operation broke even or reported a loss. It should be noted, however, that farm families benefit to some degree from goods and services (such as some shelter and transportation costs) that are shared by both the household and the farm operation. At tax time, these payments can be expensed against their farm income, and thus increase their after-tax income.

Although earning little personal income from farming, many traditional couples had highly-capitalized operations. Fifty-five percent had \$500,000 or more in assets, with 38% of

This article is adapted from *Patterns of distributing work effort across domains of paid and unpaid work among couples who operate a farm*, by Cynthia Silver, Leroy O. Stone and Sandra Swain, presented at the New Rural Economy Conference, Alfred, Ontario, October 11 to 14, 2000. The study was sponsored by the Unpaid Work Analysis Division of Statistics Canada.

these valued at more than \$1 million. Nevertheless, only 21% of traditional farming operations generated gross sales of more than \$250,000 in 1995.

Non-traditional farming couples also tended to have large investments in their farms, but not to the same extent as traditional farming couples: only 40% had more than \$500,000 in assets. But less investment seems to be associated with fewer sales, since only 9% had sales receipts over \$250,000 in 1995.

The larger investments and revenues reported by traditional farming couples reflect the type of farms they own. About three-quarters (74%) of couple-run dairy farms were operated by traditional couples; of these, 86% had sales over \$100,000 in 1995. In contrast, the great majority of miscellaneous specialty farms¹ (64%) and

1. The major types of miscellaneous specialty farms include sheep, goats, horses, mink, fox, rabbits, bees, other livestock, bison, deer, llamas, mushroom, greenhouse nursery, maple products and Christmas trees.

Data in this article come from the Canadian 1996 Agriculture-Population linkage database based on the 1996 Census of Agriculture and the 1996 Census of Population. The study population consists of those census-farms for which both husband and wife were listed as farm operators. A large fraction of these types of census-farms were too small to generate gross sales of more than \$10,000, and are excluded from this study.

Work Volume Indices

The census questions that distinguish between off-farm paid work and on-farm paid work use the year 1995 as the reference period, and unpaid work data are collected only for the reference week prior to the census. Therefore, the allocation of work effort across paid work on- and off-farm and unpaid household work could not be achieved without some integration of information across reference periods.

The Work Volume Indices use the Census of Population question on paid work hours in the week before the census. Although this weekly variable does not separate on-farm from off-farm paid work, paid hours spent on farm and off-farm work were estimated for the reference week using the annual 1995 distributions, as reported by farm operators listed on the Census of Agriculture questionnaire. This procedure makes it feasible to add paid work hours to unpaid household work hours and provide a basis for profiling work patterns.

Two limitations of this method should be noted here. First, there might be a seasonal bias due to the May reference week. Second, the farm work share of total paid work is slightly overestimated because other self-employment (such as running a non-farm business) was excluded from the estimated ratios used to distribute market work between farm and off-farm components.

Census-farm: includes all agricultural operations producing crops, livestock, poultry, animal products or other agricultural products for sale.

Farming couples: both husband and wife (whether married or common-law) identified themselves as farm operators on the census. Couples in which only the husband is identified as the operator are excluded, even though the wife may do a substantial share of the farm work, because the census does not collect estimates of time spent doing farm work by individuals who were not listed as farm operators. *Traditional farming couples* do not have any paid employment off the farm (this includes a small number who operate a non-farm business but are not employed by others). *Non-traditional farming couples* work off-farm for pay.

Gross farm receipts/sales: gross receipts of an agricultural operation (before depreciation and operating costs are subtracted) received during 1995. Revenues include income from all agricultural products sold in addition to such sources as marketing board payments, program and rebate payments received, and GST refunds.

Farm income: income from farming is defined as net income from self-employment, and includes income such as that received from the sale of agricultural products, rebates and farm-support payments, and payments under insurance plans.

Total personal income: the couple's combined income from all sources such as net self-employment income, wages and salaries, investment income, pensions, government transfers and tax credits.

Household work: unpaid housework, yard work or home maintenance for members of this household or others. Some examples include preparing meals, doing laundry, household planning, shopping and cutting the grass.

	Traditional couples	Non-traditional couples	
	Farm work	Total paid work ¹	Farm work
	Average number of hours per week, based on Work Volume Index		
All farm types ²			
Small	71	90	52
Bigger	100	102	77
Dairy			
Small	86	94	67
Bigger	108	111	91
Cattle			
Small	76	92	55
Bigger	102	108	80
Hog			
Small	--	92	57
Bigger	99	94	69
Poultry and egg			
Small	--	--	--
Bigger	87	83	58
Wheat			
Small	62	89	52
Bigger	93	103	77
Small grain/oilseed			
Small	58	87	47
Bigger	95	99	74
Miscellaneous specialty			
Small	78	90	52
Bigger	114	107	75

1. Includes farm work plus hours of off-farm employment.

2. Small farms have annual sales receipts of more than \$10,000 and less than \$100,000; bigger farms have more than \$100,000.

-- Sample too small to produce reliable estimate.

Source: Statistics Canada, 1996 Agriculture-Population linkage database.

cattle farms (62%) were run by non-traditional couples; of these, 47% reported gross sales receipts over \$100,000.

Some farms demand more work than others

According to the estimates calculated by the Work Volume Index, the old adage that farmers toil from sun-up to sun-down certainly seems to be true. And generally the larger the farm, the longer the hours. Traditional farming couples working on bigger farms generating over \$100,000 in annual sales spent an

average of 100 combined hours a week on farm work, while those on small farms with sales between \$10,000 and \$100,000 devoted 71 total hours.²

Farms with livestock are also more demanding of couples' time. For example, traditional couples running a dairy farm worked 86 hours a week on small farms and 108 hours on bigger farms. In contrast, those with wheat-growing operations had an average work week of 62 hours on small farms and 93 hours on bigger farms.

Younger farm-operator couples where the wife was under age 45 did

more farm work than older couples. Those between 35 and 44 years old put in 100 hours of labour on their farms; senior farmers (comprising a smaller group) devoted about half that amount, at 55 hours per week.

On the whole, non-traditional couples did fewer hours of farm work than traditional couples. However, because they spent additional hours in employment off the farm, they often did more paid work. In fact, non-traditional couples with small farms had a longer paid work week (90 hours) than their traditional counterparts (71 hours).

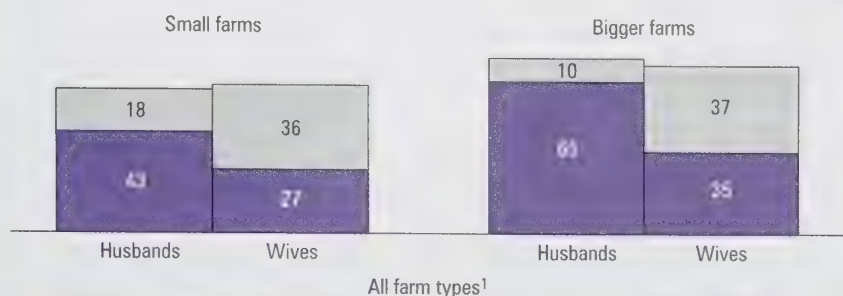
Traditional farming couples split total workload down the middle

Studies in other countries have shown that the distribution of work and decision-making within farm households is affected by gender. Women are more likely to do "household" work and men "outside" work, even if one or both are also working off-farm.³ A 1994 study of farm roles among New Zealand women suggested that they were constrained from assuming sole responsibility for farm production, even though they had a

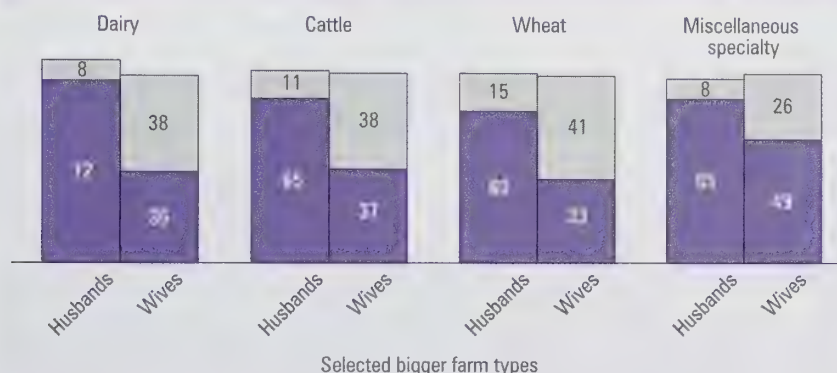
2. Statistics Canada uses gross sales receipts to classify farms by size, although revenues can be volatile from year to year. In this article, farms reporting sales of \$10,000 to \$99,999 in 1995 are defined as small farms, while those reporting more than \$100,000 in sales are described as bigger farms.

3. Wilson, John, Ida Harper Simpson and Richard Landerman. 1994. "Status variation on family farms: Effects of crop, machinery and off-farm work." *Rural Sociology*. 59, 1: 136-153; Alston, Margaret. 1995. "Women and their work on Australian farms." *Rural Sociology*. 60, 3: 521-532; Tufts Rickson, Sara and Peter L. Daniels. 1999. "Rural women and decision making: Women's role in resource management during rural restructuring," *Rural Sociology*. 64, 2: 234-250; Keating, Nora C. and Heather M. Little. 1994. "Getting into it: Farm roles and careers of New Zealand women." *Rural Sociology*. 59, 4: 720-736.

Average number of hours per week, based on Work Volume Index

Household work  Farm work 

... regardless of the type of farm



1. Small farms have annual gross sales receipts of more than \$10,000 and less than \$100,000; bigger farms have more than \$100,000.

Source: Statistics Canada, 1996 Agriculture-Population linkage database.

range of on-farm involvements; nevertheless, the amount of domestic work for which they were responsible declined as their on-farm role moved along a continuum from "homemaker" through "half farm-hand" to "farmer."⁴

In Canada, too, traditional farming couples tend to share their long hours of work in a gender-specific way. Husbands generally do much more of the farm work, even though their wives are one of the farm's operators; at the same time, wives consistently do a much larger share of the household work. Overall, husbands did roughly 60% to 85% more farm work than their wives, while wives did two to almost four times more household work than their husbands. But the total volume of

work done by each spouse in these traditional farm-operator couples was virtually the same.

On small farms, husbands and wives each averaged a 61- and 64-hour work week, respectively. Husbands spent 71% of their time (43 hours) on farm work, and wives put 57% of their work time (36 hours) into household work. On bigger farms, couples worked longer hours, with husbands recording 75 hours of total work and wives 72 hours. But while the husband spent almost all his work-time on farm work (87% or 65 hours), wives divided their time almost equally between farm and household work (35 and 37 hours, respectively).

The division of farm work within traditional farming couples is also

related to the type of farm they operate. For example, wives on dairy farms did a smaller share of the farm work (50%) than did wives on wheat farms (55%) or miscellaneous specialty farms (75%).

When young children are living in the home, their impact on the division of work is predictable. For example, young wives with children under age six did less farm work (28 hours) than those without children this age (39 hours); on the other hand, they did substantially more household work (43 hours versus 28). Since this estimate does not include time spent focussed exclusively on child care, it does not cover all of the unpaid work done by farming mothers with young children.

Summary

Farm couples are no strangers to long hours of work, with both spouses fully engaged in maintaining the farm and the household. Although husbands do more farm work and wives more household work, the total volume of paid and unpaid work on farms is shared about equally between them. That said, there are variations in the amounts of farm work done by operators of different types of farms. In general, the larger the farm, the larger the husband's share of farm work and the more household work the wife was responsible for. In other words, the larger the farm, the more gender-based the division of labour becomes.

4. Keating and Little. *ibid.*

Evolving family living arrangements of Canada's immigrants

by Derrick Thomas

Many people who move to a new country face uncertainty: they make sacrifices and sometimes suffer diminished social status. Many endure these hardships in what they believe are the long-term interests of their children and other family members. More often than not the entire purpose of migration is to accompany or rejoin family. On average, three-quarters of the immigrants admitted to Canada between 1980 and 1995 entered on the strength of their family relationship with someone who came with them or who already lived in Canada.¹ In short, the migratory behaviour of individuals frequently makes most sense when seen in the context of a family strategy.

Families can employ two basic immigration strategies, the choice of which is determined to some extent by immigration regulations. They can migrate together as a unit, relying on the skills and resources of one or more members to qualify for admission to Canada and to get established quickly. Or some members can migrate first, leaving more dependent members behind, to be sent for once a secure base has been established. People who come to Canada together tend to be members of nuclear families consisting of husband and wife with or without children. Many persons who join a family member later are spouses, particularly wives (25%), but a substantial proportion (40%) are extended family members such as parents, grandparents and siblings.

Clearly immigrant families and their relatives in Canada feel they benefit by living together. It is also believed that the migration and reunification of families is in the interest of the wider public. Families are thought to offer a source of support as immigrants get settled, learn an official language, or upgrade their qualifications. Newcomers may also lend a hand to relatives already established in Canada by providing

household labour or earnings and may free other family members to participate in the labour market or pursue higher education. By pooling their resources, families generally ease the adjustment process for new immigrants and minimize social costs for all concerned.

This article uses data primarily from three censuses to examine the family living arrangements of people aged 15 and over who immigrated in 1985, 1990 or 1995. It focusses on how these living arrangements evolve over time, with special emphasis on immigrants who joined relatives already in Canada compared with those who came with family.

Migrating together or separately

Data from Citizenship and Immigration Canada (CIC) for the years 1985 to 1995 indicate that about 40% of immigrants aged 15 and over came to Canada alone or traveled as individuals;

1. Of late, more immigrants have been selected for their skills, but in 1998, the last year for which complete information is available, over two-thirds of immigrants were admitted because they accompanied a relative or had family ties in this country.

This article relies primarily on data from the 1986, 1991 and 1996 Censuses of Population. It also uses some data from the Landed Immigrant Data System (LIDS) collected by Citizenship and Immigration Canada (CIC). The study population comprises persons who immigrated to Canada in either 1985, 1990 or 1995 at age 15 and over.

The LIDS database provides information about immigrants at the time that they immigrate to Canada and employs CIC administrative categories to classify immigrants into the basic categories of "independent," "family" and "refugee." The Census collects data about which members of a household are immigrants and the year they immigrated, but not the CIC classification under which they entered the country.

The immigrant population captured in the Census was divided into categories that reflect increasing levels of support from relatives. To avoid double-counting, immigrants who live in an economic family with more than one type of relative (for example, a later arrival and a Canadian-born adult) were classified according to the relative who is longest-established in Canada or who should be able to lend the most support. The six categories of living arrangements are immigrants who live: (1) alone as unattached individuals; (2) in economic families with children only; (3) with an adult or adults who immigrated in a year later than themselves; (4) with an adult or adults who immigrated in the same year; (5) with immigrants who migrated in a year previous to them; and (6) with Canadian-born adult relatives.

Immigrant: person from another country permitted to live in Canada permanently.

Economic family: a group of two or more persons who live in the same dwelling and are related to each other by blood, marriage, common law or adoption.

Established relatives: adult economic family members who were born in Canada (*Canadian-born relatives*) or immigrated in a year prior to the immigrant population under study (*established immigrant relatives*).

Accompanying adult: adult immigrants who were admitted in the same year as the arriving immigrant.

Later arrivals/immigrants: adult immigrants who entered Canada after the immigrant.

Probability: the estimated likelihood that an immigrant will experience a given living arrangement, expressed as a percentage.

Reference immigrant: the reference immigrant reflects the statistical model's controlled characteristics held constant at their most common value. For instance, the most common age at immigration is 30 to 49, the most common place of birth is Asia, the most common level of education is some postsecondary without a university degree, and the most common official language spoken is English. To isolate the effect of one variable, age at immigration for example, age at immigration is allowed to fluctuate while all the other characteristics are held constant at birthplace Asia, postsecondary education and English language ability. Estimates are usually presented for living arrangements prevailing five years after immigration, but education and language ability are presented for one year after.

just under 60% were accompanied by other adults. Overall, about one-third came with children under 15. About 57% of immigrants who arrived in 1985 were sponsored by relatives in Canada; in 1995, this proportion was close to 54%.

It appears, however, that not all of these newcomers actually lived with the family members who sponsored them, or if they did, that such arrangements were comparatively short-lived. Census data show that in 1986, just over half of 1985

immigrants were living with relatives who were already established in Canada; five years later, fewer than 40% did. Most of the decline appears to have been among those who joined previous immigrants. The comparatively small proportion living with

	Living alone	With children only	With later arrivals only	With accompanying family %	With established relatives		
					Immigrants (1)	Canadian-born (2)	Either (1) or (2)
Living arrangements at immigration in 1985	18	1	--	24	--	--	57
1986	13	2	1	33	43	11	51
1991	11	4	8	40	29	11	38
1996	11	4	11	36	26	13	38
Average	11	3	7	36	32	12	42

-- Data not collected.

Note: Totals may not sum to 100 due to rounding. Categories (1) and (2) are not mutually exclusive.

Sources: Citizenship and Immigration Canada, Landed Immigrant Data System; and Statistics Canada, Censuses of Population.

Canadian-born adults actually grew over the period.

In contrast, the proportion of 1985 arrivals living with family who immigrated in the same year as themselves was fairly stable. The proportion who lived with immigrants who arrived in later years increased quickly, from less than 1% in 1986 to 8% in 1991 and 11% in 1996.

It seems that persons who migrate together are more likely to live together in Canada. This undoubtedly stems, in part, from the fact that persons who move together are likely to be more closely related than persons who join them later.

Many factors influence immigrant living arrangements

The living arrangements of immigrants are influenced by a number of factors. Gender and gender roles often dictate family arrangements and the timing of migration for family members. Age at immigration, length of time in Canada and changes over the life course also play a role. Differences in culture are additional considerations. Other more complex effects include level of education and official language ability.² Last but not least, the immigration regulations and the

relative social and economic conditions prevailing in Canada and the source country at the period of immigration are important.

These characteristics were used to develop a statistical model that estimates the probability (or likelihood) that an immigrant will reside in an economic family with a particular type of co-resident. The model isolates the effect of each characteristic on those probabilities; in other words, all the other factors in the model are "controlled for" or held constant while the influence of one is being considered. Probabilities are estimated for a benchmark reference immigrant, a simulated "typical immigrant" against whom the impact of change in a given characteristic is measured. Separate estimates were calculated for men and women because they have such different experiences. For simplicity's sake, when describing the probabilities the term "immigrant" is employed rather than "reference immigrant," with the understanding that it refers to an immigrant with the most typical characteristics.

Women join households, men bring their families with them

Men and women have different living arrangements at different stages in

their lives. Women generally marry at younger ages, are more often single parents and more often live alone in old age.

It is clear from Census data that a person's age at immigration exerts a powerful effect on living arrangements. As expected, though, there are clear differences between men and women. Women have a greater tendency to live with adults who had immigrated in a previous year; for their part, men more often live with persons who migrated with them or who joined them later. To the extent that a family immigrates over a period of years, men more often lead the way to Canada and are joined later by women and children.

Even after five years in Canada, both women and men who immigrated as teenagers have the highest likelihood of living with adults who migrated in the same year (probably their parents). Young women, though, have a slightly higher probability of living with established immigrants.

2. Employment and income are related in even more complex ways, and will be discussed in a forthcoming article.

Canada has an evaluation system that helps immigration officers assess the suitability of people who want to live here. Independent immigrants are evaluated on the point system; many others, such as refugees and family class applicants, are not. Family reunification enables the close family of a landed immigrant to join him or her in Canada. Close family is defined as a spouse, dependent children, parents, grandparents, orphaned brothers, sisters, nephews, nieces, or grandchildren under 19 and unmarried, fiancé(e) and dependent children. It accounts for roughly half of all newcomers to Canada.

Family reunification has long been a key objective of Canadian immigration policy and legislation. Canada has resisted the trend in other immigrant-receiving countries to restrict family immigration. Family class immigration permits both recent immigrants and long-established Canadians to be reunited with close family members from abroad, assists them in achieving self-reliance and supports the building of communities.

The effect of cross-border marriages may be discerned in people migrating in their twenties. All else being equal, there is a one in three chance that a woman immigrating at this age will live with an immigrant who was already established in Canada, and a one in four chance for men. An estimated 20% of the men in this group will live with a person who followed them to Canada, compared with 11% of the women. However, 15% of men who immigrate in their twenties will live alone.

Among both men and women, but especially men, people who immigrate in their prime working years between the ages of 30 and 49 have a high probability of continuing to live with persons who immigrated with them, at almost 60% after five years.

Thereafter as the age at migration increases, the probability that an immigrant will live with established

relatives also climbs. There is a 48% likelihood that those who arrived as seniors will be living with immigrants who preceded them. Women admitted after age 65, however, also have the highest probability of living alone of all age groups. After five years in Canada, an estimated 23% will live alone, compared with 4% of men. It does not appear, however, that many of these women were widowed in Canada. More women than men migrate at an older age, and the probability that they will live alone is high even one year after their arrival. This suggests that the death of their partners abroad may prompt the immigration of older women.

Families evolve and change with time in Canada

Family arrangements also change as immigrants adjust to life in their new country, and the number of years since

Although family class immigrants are not assessed by the point system, they must prove to the visa officer in their country of residence that they meet Canada's health standards and are of good character. Also, they must be sponsored by a close relative who is a citizen or permanent resident of Canada. Sponsors must sign an undertaking of financial responsibility, which may extend from one to ten years, to provide housing and care for the people they bring in. People who do not qualify under the family class criteria but who have close relatives here may apply to enter as skilled workers and receive points for having a relative in Canada.

Strengthening the family unit is important in helping newcomers adjust to Canada. Still, studies show that family class immigrants often have more difficulty settling in because they are less able to speak English or French or have fewer job skills. The support from close relatives can be crucial in helping a newcomer meet these challenges successfully.

their admission to Canada has a profound impact on the type of household they live in. Holding constant all factors except length of residence, the probability that an immigrant will live with established immigrants falls over a decade by almost half for men (from 30% in the first to 17% in the tenth year), and by over one-third for women (from 34% to 22%). Given that over half of all immigrants migrate on the strength of a sponsor in Canada, and that the drop in the probability of living with previous immigrants is most precipitous between one and five years after arrival, the data suggest that living with established relatives is an interim arrangement for many.

The probability that an immigrant man will be joined by someone who arrived in a year later than himself increases from 2% after one year in Canada to 12% after five years and to almost 20% after 10 years. The

	Living alone	With children only	With later arrivals only	With accompanying family	With established relatives	
					Immigrants	Canadian-born
Age at arrival	%					
Men						
Under 20	5	2	4	65	22	2
20-29	15	1	20	32	26	5
30-49	7	1	14	59	16	3
50-64	4	†	4	59	29	3
65 and over	4	†	2	40	48	4
Women						
Under 20	5	3	6	55	27	3
20-29	10	4	11	34	35	6
30-49	9	5	8	55	20	3
50-64	12	1	6	37	40	4
65 and over	23	†	5	17	48	6

† Less than 1 percent.

Immigrants rely less on established immigrants the longer they live in Canada

Years of residence	%					
Men						
1	11	2	2	53	30	2
5	9	1	12	55	20	3
10	8	1	20	49	17	4
Women						
1	11	2	1	48	34	3
5	9	4	8	49	25	3
10	12	6	11	45	22	4

Immigrants from some non-traditional source regions are more likely to be living alone or with children only

Place of birth	%					
Men						
United States	11	2	2	31	5	49
Latin America/Caribbean	11	2	16	44	20	7
Europe	10	1	13	57	9	10
Africa	17	1	17	47	11	6
Asia/Pacific	7	1	14	59	16	3
Women						
United States	12	8	1	22	7	50
Latin America/Caribbean	10	15	12	36	20	7
Europe	11	6	4	55	14	10
Africa	10	11	7	52	17	3
Asia/Pacific	9	5	8	55	20	3

Note: Percentage refers to estimated probabilities for a reference immigrant at five years after immigrating to Canada. See "What you should know about this study." Totals may not sum to 100 due to rounding.

Source: Statistics Canada, Censuses of Population.

	Living alone	With children only	With later arrivals only	With accompanying family	With established relatives	
Highest level of education				%	Immigrants	Canadian-born
Men						
Primary/secondary	6	1	13	58	19	2
High school graduation	7	1	15	58	17	2
Some postsecondary	7	1	14	59	16	3
University degree	7	1	13	64	12	2
Women						
Primary/secondary	6	3	1	55	31	3
High school graduation	6	3	1	57	31	2
Some postsecondary	10	3	1	54	30	3
University degree	9	2	2	58	26	3

Note: Percentage refers to estimated probabilities for a reference immigrant at one year after immigrating to Canada. See "What you should know about this study." Totals may not sum to 100 due to rounding.

Source: Statistics Canada, Censuses of Population.

corresponding figures for women suggest that they are less likely to sponsor new immigrants.

In contrast, the likelihood of living with other adults who immigrated in the same year is much more stable over time, although after 10 years it too has declined a little. Again, it seems that family members who migrate together are inherently more likely to remain living together than relatives who are separated by migration.

Immigrants differ by period of immigration

The social and economic conditions that push migrants out of their own country, or pull them toward Canada, vary over time. They determine who will move in a given period and they condition the behaviour of these migrants. Of special importance are the regulations governing migration in the country of origin and in Canada.

In 1985, Canada curtailed the selection of skilled workers in view of high rates of domestic unemployment, and family reunification became virtually the only means of entering the country. With the boom of the late

80s the emphasis shifted to selecting independent migrants, and by 1990 a smaller proportion of immigrants were being admitted to join family members already in Canada. The early 90s witnessed a new recession and by 1995, family reunification was again an important component of immigration.

This cycle suggests that immigrants who came in 1985 and in 1995 differ in their living arrangements from those who arrived in 1990. Holding other factors constant, five years after immigration, 1990 immigrants were more likely to be living with accompanying adults who had come in that same year, while 1985 arrivals had the highest probability of living with established family.

People born in different regions have different family migration patterns

Migrants born in different source countries also differ considerably in terms of their living arrangements in Canada. These differences reflect historical connections to Canada as well as cultural traditions surrounding gender roles, marriage and extended family living arrangements.

All other things being equal, immigrants born in Latin America or the Caribbean, in Asia and in Africa are the most likely to live with established immigrants. Immigrants from these regions also have the highest likelihood of living with immigrants who arrived later. For Americans and Europeans, the probabilities of living with immigrants from a previous year are lower but they are much higher for living with Canadian-born adults. American-born immigrants seem to choose Canadian mates: both men and women have about a 50% likelihood of living with a Canadian-born person within five years of coming to Canada. The probability is about 10% for Europeans and it is almost nil for immigrants from most other regions of origin. Cross-border marriages apparently drive much of the immigration to Canada from the United States.

Immigrants born in Asia and Europe have the highest probabilities of living with someone who immigrated in the same year, at over 50% five years after arrival for both men and women. In contrast, men from Africa

have the greatest likelihood of living alone; young African men rival senior women in their propensity to live alone. Since a relatively high proportion of African women are still living with children only, these findings suggest that migrants from this region might be having difficulty reuniting their families. The scattering of refugee families resulting from turmoil in some African countries during the 1980s and 1990s may well be responsible.

Women from Latin America and the Caribbean are most likely to be single parents. Compared with other women, there is a higher probability that women from these regions will lead the migration of their families. This is indicated, for example, by the comparatively higher likelihood that they will live with immigrants who are later arrivals than themselves.

With education comes increased independence

Both education and language ability interact with economic family arrangements. For example, five or ten years after arrival, it can be difficult to say whether an immigrant lives in a particular type of family because they speak an official language or whether they have learned an official language because of their living arrangements. Accordingly, the probabilities related to education and language ability are estimated for one year after immigration.

People with a higher level of education exhibit less reliance on family members already established in Canada. All else being constant, the probability of living with established immigrants decreases with education among both sexes. It is also clear that the higher the level of education, the higher the probability that an immigrant will be living with others who came at the same time. The chances of living alone also increase with schooling.

The impact of official language ability is quite similar to that of education. Those who speak neither of Canada's

official languages have the greatest likelihood of living with immigrants who preceded them to Canada. Those who speak both official languages have a high probability of living alone or with persons who migrated in the same year.

Summary

The general living arrangements of immigrants, and in particular their propensity to live with established relatives, is conditioned by gender, life stage and culture. It is also conditioned in more complex ways by education and language ability. It must be acknowledged, however, that Canadian immigration policy plays an important role in determining the characteristics of immigrants and can directly or indirectly influence their subsequent living arrangements.

Clearly, an adjustment in the economic family arrangements of immigrants takes place over time. Most immigrants are able to rely on the support of family in Canada, but some seem to lack such assistance. They include women immigrating after age 65, young African men and single mothers from Africa, Latin America and the Caribbean. Furthermore, it seems that families divided by the migration process are more likely to live apart after a short time in Canada than are families who arrive in the same calendar year. The decision to migrate together may itself imply closer bonds and the intention to live together after arrival.



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SOCIAL INDICATORS

	1992	1993	1994	1995	1996	1997	1998	1999	2000
LABOUR FORCE									
<i>Labour force ('000)</i>	14,362.2	14,504.5	14,626.7	14,750.1	14,899.5	15,153.0	15,417.7	15,721.2	15,999.2
<i>Total employed ('000)</i>	12,760.0	12,857.5	13,111.7	13,356.9	13,462.6	13,774.4	14,140.4	14,531.2	14,909.7
Men	6,970.4	7,029.9	7,177.5	7,298.5	7,346.0	7,508.3	7,661.4	7,865.8	8,049.3
Women	5,789.6	5,827.5	5,934.2	6,058.4	6,116.6	6,266.2	6,479.0	6,665.3	6,860.4
<i>Workers employed part-time (%)</i>	18.7	19.3	19.0	18.9	19.2	19.1	18.9	18.5	18.1
Men	10.6	11.2	10.8	10.8	10.8	10.5	10.6	10.3	10.3
Women	28.4	29.0	28.9	28.6	29.2	29.4	28.8	28.0	27.3
<i>Involuntary part-time¹</i>	29.2	31.9	31.4	31.5	35.0	31.1	29.2	26.7	25.3
<i>Looked for full-time work</i>	--	--	--	--	--	10.6	10.0	9.0	7.4
% of women employed whose youngest child is under 6	15.8	16.1	16.0	15.9	15.9	15.6	15.0	14.7	14.3
% of workers who were self-employed	15.0	15.8	15.5	15.7	16.1	17.1	17.2	16.9	16.2
% of employed working over 40 hours per week ²	20.3	21.0	21.7	21.7	21.2	18.9	18.9	18.4	18.0
% of workers employed in temporary/contract positions	--	--	--	--	--	11.4	11.8	12.1	12.5
% of full-time students employed in summer	52.4	49.9	50.3	50.2	47.9	45.7	47.2	48.8	50.9
<i>Unemployment rate (%)</i>	11.2	11.4	10.4	9.4	9.6	9.1	8.3	7.6	6.8
Men aged 15-24	19.6	19.6	17.9	16.3	16.9	17.1	16.6	15.3	13.9
25-54	10.7	10.6	9.6	8.7	8.9	8.0	7.2	6.5	5.7
Women aged 15-24	14.3	14.3	13.5	13.0	13.7	15.2	13.6	12.6	11.3
25-54	9.2	9.9	9.0	8.2	8.5	7.6	6.9	6.3	5.8
Population with high school or less	14.0	14.2	13.1	12.2	12.4	12.1	11.2	10.3	9.3
Population with postsecondary completion	9.3	9.6	8.9	7.9	8.1	7.4	6.5	5.9	5.2
Population with university degree	5.5	5.9	5.4	4.9	5.2	4.8	4.4	4.3	3.9
EDUCATION									
Total enrolment in elementary/secondary schools ('000)	5,284.1	5,327.8	5,362.8	5,430.8	5,414.5	5,386.3	--	--	--
Secondary school graduation rate (%)	73.2	74.6	71.5	74.8	74.7	74.4	--	--	--
<i>Postsecondary enrolment ('000)</i>									
Community college, full-time	364.6	369.1	379.9	391.2	397.3	398.6	403.5	--	--
Community college, part-time	103.6	98.4	90.8	87.7	87.1	91.6	91.4	--	--
University, full-time ³	569.5	574.3	575.7	573.2	573.2	573.1	580.3	--	--
University, part-time ³	316.2	300.3	283.3	273.2	256.1	249.7	246.0	--	--
% of population 18-24 enrolled full-time in postsecondary	32.6	33.4	33.9	34.3	34.6	34.3	34.4	--	--
% of population 18-21 in college	23.0	23.5	24.2	24.7	24.7	24.6	24.7	--	--
% of population 18-24 in university ³	19.8	20.3	20.4	20.4	20.4	20.2	20.3	--	--
<i>Community college diplomas granted ('000)</i>	92.5	95.2	99.0	97.2	101.0	105.0	--	--	--
<i>Bachelor's and first professional degrees granted⁴ ('000)</i>	123.2	126.5	127.3	128.0	125.8	124.8	--	--	--
Agriculture, biological sciences	7,722	8,121	8,399	9,288	9,664	10,079	--	--	--
Education	21,079	21,123	21,277	21,421	20,638	19,374	--	--	--
Engineering and applied sciences	8,309	8,799	9,098	9,415	9,138	9,255	--	--	--
Fine and applied arts	4,049	4,189	4,194	4,142	4,105	4,276	--	--	--
Health professions	7,778	7,970	8,375	8,633	8,837	8,620	--	--	--
Humanities and related	16,706	16,643	16,127	15,889	15,014	14,721	--	--	--
Mathematics and physical sciences	6,580	6,816	7,142	7,005	7,091	7,239	--	--	--
Social sciences	47,844	49,172	49,035	48,422	47,751	47,760	--	--	--

-- Data not available.

1. 1996 is an eight-month average (January to August). Data after 1996 are not comparable with previous years.

2. Hours usually worked in their main job by workers aged 25 and over.

3. Includes undergraduate and graduate.

4. Includes field of study not reported.

Sources: *Labour Force Historical Review*, 1999, Catalogue no. 71F0004XCB and *Education In Canada*, 1999, Catalogue no. 81-229-XPB.

EDUCATORS' NOTEBOOK

Suggestions for using Canadian Social Trends in the classroom

Lesson plan for **"Patterns of volunteering over the life cycle"**

Objective

- ☐ To explore the importance of volunteering both for the individual and for society.

Method

1. Conduct a survey to find out how many students in the class have done volunteer work. Ask them to briefly describe where they were working and what their volunteer job entailed.
2. Have students talk about their parents' and possibly their grandparents' involvement in volunteering. Each generation may have different reasons for offering their time as volunteers. Can you see a pattern to who volunteers and why?
3. Relying on their own experience, ask students to list some of the benefits and some of the drawbacks of volunteering.
4. According to the article, there is an association between volunteering and being socially connected. How has volunteering expanded your range of interactions with people? Were most of these interactions proximate or extended? Explain.
5. Describe in your own words why you think volunteering is important to society. Consider what would happen if all volunteers quit their job tomorrow.

Using other resources

- ☐ *Caring Canadians, involved Canadians: Highlights from the 1997 National Survey of Giving, Volunteering and Participating*. Statistics Canada Catalogue no. 71-542-XPE. Available also on the Internet.

Share your ideas!

Would you like to share your lessons using *CST* with other educators? Send us your ideas and we will send you lessons using *CST* received from other educators. For further information, contact your regional Statistics Canada education representative at 1 800 263-1136 or Joel Yan, Education Resources Team, Statistics Canada, Ottawa, ON, K1A 0T6, 1 800 465-1222, fax: (613) 951-4513 or Internet e-mail: yanjoel@statcan.ca. Details on regional education support are available at <http://www.statcan.ca/english/edu/rep-tea.htm>.

Educators

You may photocopy "Educators' Notebook" and any item or article in *Canadian Social Trends* for use in your classroom.

What do Canadians eat?

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- fifteen years of data at your fingertips;
- analysis and graphs illustrating trends and changes in eating patterns.

How much meat, cheese and other dairy products are Canadians eating? Are we drinking more low-fat milk? How much alcohol, tea and coffee are Canadians drinking? Has our consumption of sugar, eggs, rice and nuts changed over time? If you are curious about these

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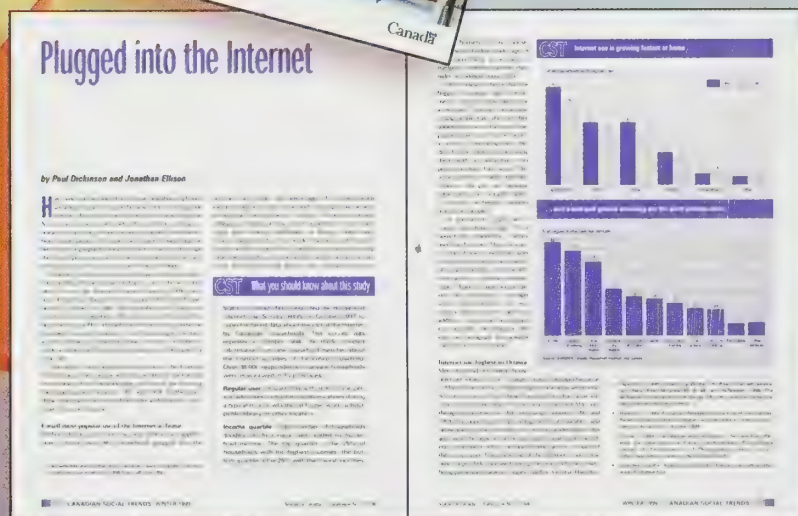
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